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MODE-S DATA PACKAGE

1007-6801-000

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This manual consists of the following:

CALIBRATION PROCEDURE

Description	Page
S-1403 Unit	Calibration 4
Power Supply	Calibration 9
Diversity Module	Calibration 10
Mode S System	Calibration 11

DRAWING AND MATERIAL LIST

Description	Reference Series	Page
S-1403 Product Structure		1
S-1403 Interconnect		2
S-1403 Composite		3
Front Panel Mech Assembly	15000	9
Front Panel Circuit Schem		11
Keyboard PC Board Assy	22000	13
Keyboard Circuit Schem		14
Pulse Board PC Board Assy	11000	17
Pulse Board Circuit Schem		23
Front Panel Processor Circuit Schem	14000	24
Front Panel Processor PC Board Assy		25
Processor PC Board Assy	12000	29
Processor Circuit Schem		35
Power Supply Circuit Schem	18000	36
Power Supply Mech Assy		37
Power Distribution PC Board Assy	16000	39
Inverter Supply Circuit Schem	17000	41
Inverter Supply PC Board Assy		42
Line Supply Circuit Schem	19000	45
Line Supply PC Board Assy		46
Motherboard Circuit Schem	20000	49
Motherboard PC Board Assy		50
Diversity Mech Assy	23000	53
Diversity Circuit Schem		54
Diversity I/O PC Board Assy	26000	57
Video Filter PC Board Assy	29000	61
Power Termination Mech Assy	28000	63
Power Termination Circuit Assy		64
Modulator Mech Assy	31000	67
Modulator PC Board Assy	25000	68
Modulator Circuit Schem		75
Source/Power Amp Circuit Schem	30000	76
Source/Power Amp Mech Assy		77
1030 MHz Source PC Board Assy	24000	78
Power Amp PC Board Assy	27000	85

2. CALIBRATION

A. General

This section contains calibration procedures for the S-1403 assemblies and modules. The calibration procedures should be performed as a result of one or more of the following conditions:

(1) If, during the course of normal operation, the S-1403 fails to meet performance specifications.

(2) If a module is found to be defective and requires significant repair or replacement.

(3) If the recommended 12 month calibration is due.

B. Safety Precautions

As with any piece of electronic equipment, extreme caution should be taken when working with energized circuits. Certain circuits and/or components within the S-1403 contain extremely high voltage potentials, capable of causing serious bodily injury or death (refer to WARNINGS below). When performing the calibration procedures in this section be sure to observe the following precautions:

WARNING: WHEN WORKING WITH LIVE CIRCUITS OF HIGH POTENTIAL, KEEP ONE HAND IN POCKET OR BACK, TO AVOID SERIOUS SHOCK HAZARD.

WARNING: REMOVE ALL JEWELRY OR OTHER COSMETIC APPAREL BEFORE PERFORMING ANY CALIBRATION PROCEDURE.

WARNING: USE ONLY INSULATED TROUBLESHOOTING TOOLS WHEN WORKING WITH LIVE CIRCUITS.

WARNING: FOR ADDED INSULATION, PLACE RUBBER BENCH MAT UNDERNEATH ALL POWERED BENCH EQUIPMENT, AND A RUBBER FLOOR MAT UNDERNEATH TECHNICIAN'S CHAIR.

WARNING: HEED ALL WARNINGS AND CAUTIONS CONCERNING MAXIMUM VOLTAGES AND POWER INPUTS.

C. Test Equipment Requirements

A list of test equipment required to perform each calibration procedure is provided with each procedure. Appendix C contains a comprehensive list of test equipment suitable for performing any of the calibration procedures contained in this manual.

NOTE: The test equipment listed in Appendix C may exceed the minimum required specifications for the applicable calibration procedure.

D. Controls and Calibration Points

The various front and rear panel controls, connectors and indicators specified in the calibration procedures are followed by an item number. Numerical item numbers refer to the ATC-1400A. Alphabetic item numbers refer to the S-1403.

E. Calibration Adjustments

Before making any calibration adjustments, always observe the signal measurement. If the measurement is within the tolerances given, do not proceed with the specific adjustment. (The only time an adjustment is required for a measurement that is within tolerance is when a subsequent interactive adjustment is insufficient and the procedure explicitly requires repeating previous steps.) Normally, when an adjustment is required, the technician should attempt to obtain a precise measurement and not be satisfied with an adjustment that is within tolerance.

F. Disassembly Requirements

To perform any of the calibration procedures contained in this section, the top cover must be removed from the S-1403.

G. Initial ATC-1400A Control Settings

Before any calibration procedure, the ATC-1400A controls a shall be set as follows:

CONTROL		SETTING
7	CW/NORM/OFF Switch	NORM
18	SLS/ECHO ON/OFF Switch	OFF
25	XPDR DEV P3/CAL Switch	CAL
28	XPDR DEV P2/CAL Switch	CAL
32	PRF/SQTR ON/OFF Switch	ON
37	TACAN ON/OFF Switch	OFF
38	XPDR MODE Control	A
40	DISPLAY SELECT Control	PRF SQTR H
41	PRF/SQUITTER Thumbwheels	500 Hz
42	DBL INTERR/INTERF Thumbwheels	000.0 OFF
45	FREQ/FUNCTION SELECT Thumbwheels	1030 XPDR
48	ΔF Thumbwheels	OFF
52	RANGE/VEL/ACCEL Thumbwheels	00000
65	SELF INTERROGATE ON/OFF Switch	OFF

H. Calibration Procedures

(1) S-1403 Unit

PREREQUISITES: Calibrated ATC-1400A

SPECIAL ACCESSORY EQUIPMENT REQUIRED: (See Appendix C for Test Equipment Specications)

Digital Voltmeter
Powermeter
Spectrum Analyzer
Frequency Counter
Heterodyne Monitor
Oscilloscope

STEP	PROCEDURE
1.	Remove the S-1403's top cover.
2.	Connect S-1403 to ATC-1400A as per Chapter 1-2-1 para E.
3.	Connect ATC-1400A AC electrical connector to AC OUT Connector (K).
4.	Apply AC electrical power to the Mode S Test System. Allow 15 minute warm-up time.
	POWER SUPPLY
5.	Measure voltage across C12005 (Processor PC Board). Voltmeter should read +5 VDC (±0.05 VDC).
6.	Adjust R17037 (Power Supply) to obtain proper level.
7.	Measure voltage between FL23009 and Ground. Voltmeter should read +12 VDC (±0.05 VDC).
8.	Adjust R17020 to obtain proper level.
9.	Measure voltage between FL23010 and Ground. Voltmeter should read -12 VDC (±0.25 VDC).
10.	Verify voltage measured between E16007 and E16009 is +40 VDC (±5 VDC).
	DPSK BALANCE
11.	Select 2ND, FUNC, 2. "FUNC: (2) SEQ" Control Menu should be displayed

STEP	PROCEDURE

12. Utilizing SLEW Control (F), rotate control through each sequence and set sequences S02 thru S16 to OFF.

13. Verify Sequence Menu S01 is ON.

14. Set S01 for UF#04, sequence address 17725762.

15. Set ANT B to ON.

16. Connect GEN Connector (15) to Oscilloscope.

17. Connect Oscilloscope external trigger to SYNC Connector (29).

18. Position T_O/TAC/T_D Switch (30) to T_O.

19. Balance DPSK data by adjusting R11026. Refer to Figure 1 for visual description.

RF LEVEL VERNIER

20. Connect Powermeter to RF I/O Connector (9).

21. Disconnect J10013.

22. Set RF LEVEL Control (6) for 0 dBm.

23. Set CW/NORM/OFF Switch (7) to CW.

24. Set S-1403 RFLvl to 0.0.

25. Record Powermeter readings.

26. Connect J10013.

27. Adjust R11023 until Powermeter displays value recorded in step 25 (±0.05 dB).

28. Set S-1403 RFLvl to +3dBm.

29. Adjust R11021 until Powermeter displays 3 (±0.15) dB higher than recorded in step 25.

30. Repeat steps 21 thru 29 until readings are 0 dBm (±0.05 dBm) and 3 dBm (±0.15 dBm) whenever J10015 is connected and disconnected.

31. Set S-1403 RFLvl to -3.0. The powermeter should display 3 (±0.15) dB below the value recorded in step 25.

32. Monitor TP23001 with Spectrum Analyzer.

33. Verify OSC is phased locked at 1030 MHz (±10kHz). If within limits go to step 45 DIVERSITY PULSE TIMING.

CAUTION: TCXO AND 1030 MHz OSCILLATOR ARE FACTORY SET AND SHOULD NOT REQUIRE ANY ADJUSTMENTS.

TCXO DIVERSITY PHASE LOCK (Factory Preset)

34. Remove power to TCXO and ground TP23005.

35. Adjust R24022 for symmetric trapezoidal waveform at TP23007.

36. Verify center of sweep is 1030MHz. Set R24026 to center sweep.

37. Verify sweep width of 9 MHz (1025.5 to 1034.5 MHz). Adjust sweep width with R24025.

38. Connect power to TCXO and remove ground from TP23005.

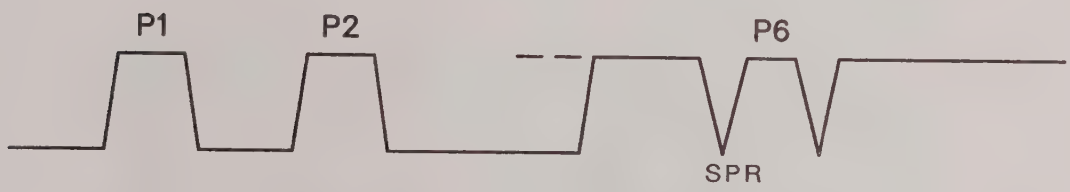


Figure 1 Timing Diagram for adjustment of P2 to SPR

39. Adjust R24022 until DC voltage on TP24005 is equal to voltage written on block exterior.

40. Verify OSC is phase locked at 1030 MHz as seen at TP23001.

TCXO FREQUENCY ADJUST (Factory Preset)

41. Connect Frequency Counter to TP23001.

42. Adjust R16003 (Power Supply) until +6 VDC is on the wiper of R16003.

43. Set coarse adjust on TCXO to 1030 MHz (±1 kHz) on frequency counter.

44. Adjust R16003 to 1030 MHz (±100Hz). The voltage on the wiper of R16003 should be 6.0 (±0.5) VDC.

STEP	PROCEDURE

DIVERSITY PULSE TIMING

45. Set ATC-1400A CW/NORM/OFF Switch (7) to NORM.

46. Connect Oscilloscope to ATC-1400A GEN Connector (15).

47. Measure P2 rising edge to centerpoint of SPR. Note and record time displayed.

48. Adjust R12007 counterclockwise to increase spacing, clockwise to decrease spacing, until spacing noted is 2.75 µs (±25ns).

49. Select 2ND, SAVE, 1 Keys

50. Set S-1403 power to OFF, Wait a minimum of 30 sec, Set S-1403 power to ON.

51. Select 2ND, RECALL, 1 Keys.

52. Verify P2 to SPR is 2.75µs (± 25 ns).

53. Monitor TP31003 with Heterodyne Monitor. Adjust Oscilloscope for full screen display.

54. Remove Heterodyne monitor from TP31003 and connect Heterodyne monitor to RF I/O Connector (9).

55. Adjust ATC-1400A RF Level for approximately full screen display. Position 50% point of P1 over the major verticle axis. This will become the reference point for the following step.

56. Connect TP31003 to Heterodyne monitor. Adjust R26010 (Diversity I/O) until P1 (S-1403) is co-incident with P1 (ATC-1400A).

57. Adjust R26009 for P1 pulse width of 0.8µs (±10ns).

58. Record time from P2 to SPR.

59. Adjust R26006 until time from P2 to SPR is 2.75µs (±25ns).

60. Adjust R26005 to set time from SPR to second phase transition. Time should be 1.0µs (±10ns).

61. Replace termination on TP31003.

S-1403 LEVEL

62. Set Output Level (ATC-1400A) to -50 dBm.

63. Set S-1403 RFLvl to 0.0.

64. Connect Spectrum Analyzer to RF I/O Connector (9).

65. Set CW/NORM/OFF Switch (7) to CW.

66. Set reference level on Spectrum Analyzer.

67. Connect Spectrum Analyzer to ANT B Connector (E).

68. Adjust R26013 until output level is equal to level set at step 55.

69. Set AC Power to OFF.

70. Reassemble S-1403.

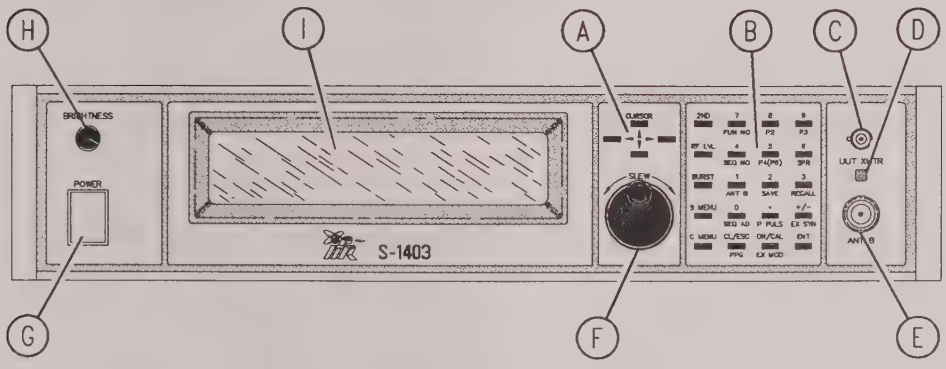


Figure 2 S-1403 Front Panel

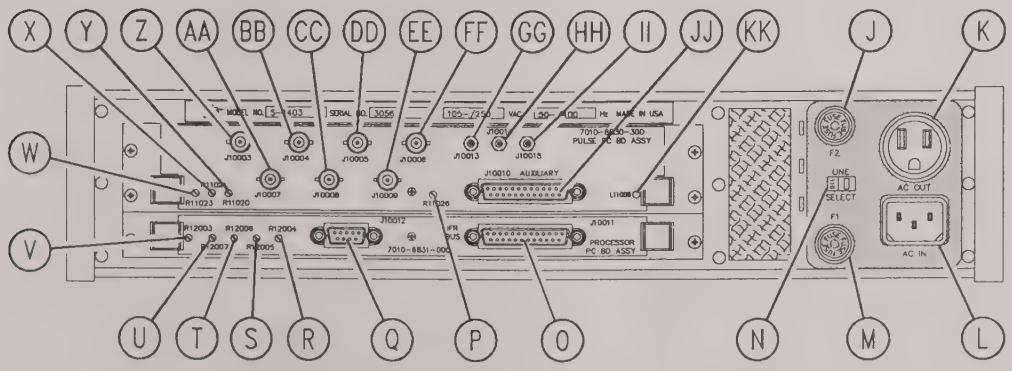


Figure 3 S-1403 Rear Panel

(2) Power Supply

PREREQUISITES: None

SPECIAL ACCESSORY EQUIPMENT REQUIRED: (See Appendix C for Test Equipment Specifications)

Digital Voltmeter

STEP PROCEDURE

1. Set Digital Voltmeter to measure volts DC.
2. Connect Digital Voltmeter positive lead to Power Distribution PC Board terminal E16014, and negative lead to terminal E16007.
3. Verify Digital Voltmeter indicates a minimum of +16 volts.
4. Verify the following voltages are within tolerances:

TEST POINT	VOLTAGE	ADJUST
FL18007	+12 Vdc (±0.05 V)	R17020
FL18004	+5.0 Vdc (±0.05 V)	R17037
FL18005	-12 Vdc (±0.25 V)	R17020
FL18006	+40 VDC (±5 V)	R17020

NOTE: The +40 VDC and -12 VDC supplies track the +12 VDC supply.

(3) Modulator, Diversity I/O, Video Filter, 1030 MHz Source and Power Amp

PREREQUISITES: None

SPECIAL ACCESSORY
EQUIPMENT REQUIRED: None

CAUTION: The Diversity Block, consisting of the Modulator, Diversity I/O, Video Filter, 1030 MHz Source and Power Amp, is determined to be non-repairable and must be returned to an Authorized IFR Service Center or returned to IFR Systems Inc for calibration and/or repair.

(4) System Calibration

PREREQUISITES: S-1403 Unit Calibration completed
Calibrated ATC-1400A
S-1403 connected to ATC-1400A per para E, Chapter 1-2-1.

SPECIAL ACCESSORY EQUIPMENT REQUIRED: (See Appendix C for Test Equipment Specificatons)

Spectrum Analyzer
Power Meter
Oscilloscope

STEP	PROCEDURE
1.	Set S-1403 POWER to ON.
2.	Verify FUNC:(1) ATC Control Menu is displayed after approximately 30 seconds.
3.	Utilizing CURSOR Keys (A), position cursor to RFLvl field.
4.	Set S-1403 RFLvl to 0.0 dBm.
5.	Set ATC-1400A RF Level to 00 dBm.
6.	Disconnect J10013.
7.	Set CW/NORM/OFF Switch (7) to CW.
8.	Connect Power Meter to RF I/O Connector (9). Record Power Meter readings.
9.	Connect J10013 and adjust R11023 to reading from step 8.
10.	Set S-1403 RFLvl to +3.0.
11.	Adjust R11021 until Power Meter displays +3.0 dB more than step 8.
12.	Repeat steps 4 thru 11 until desired results are obtained.
13.	Verify Power Meter readings agree within ±0.05 dBm whenever J10013 is connected and disconnected.
14.	Verify S-1403 RFLvl is -3 (±0.2) dbm when the RFLvl is set to -3.0, and +3 (±0.2) dBm when RFLvl is set to +3.0.
15.	Select 2ND, FUN NO, 2 Keys. FUNC:(2) SEQ Control Menu should be displayed.

16. Select SMENU Key.

17. Utilizing SLEW Control (F), Rotate Control through each sequence menu and set sequences S02 to S16 OFF.

18. Set sequence S01 to UF#04, Seq address 17725762.

19. Select CMENU, 1 Keys.

20. Set ANT B to ON.

21. Set CW/NORM/OFF Switch (7) to NORM.

22. Connect GEN Connector (15) to Oscilloscope.

23. Connect ext trigger input of Oscilloscope to SYNC Connector (29).

24. Set T_O/TAC/T_D Switch (30) to T_O.

25. Adjust R11026 to even peaks of P6.

Figure 4 Timing Diagram for Adjustments of P6

26. Rotate RF LEVEL Control (6) until -50 dBm is displayed on RF LEVEL Display (9).

27. Set CW/NORM/OFF Switch (7) to CW.

30. Connect RF I/O Connector (9) to Spectrum Analyzer.

31. Set S-1403 RFLvl to 0.

32. Set current display on Spectrum Analyzer as a reference.

33. Connect S-1403 ANT B Connector (E) to Spectrum Analyzer.

33. Adjust R26013 to set Spectrum Analyzer display to reference level recorded in step 32.

34. Set CW/NORM/OFF Switch (7) to NORM.

35. Connect Oscilloscope to GEN Connector (15).

STEP	PROCEDURE

36. Measure P2 rising edge to centerpoint of SPR. Note and record time displayed.

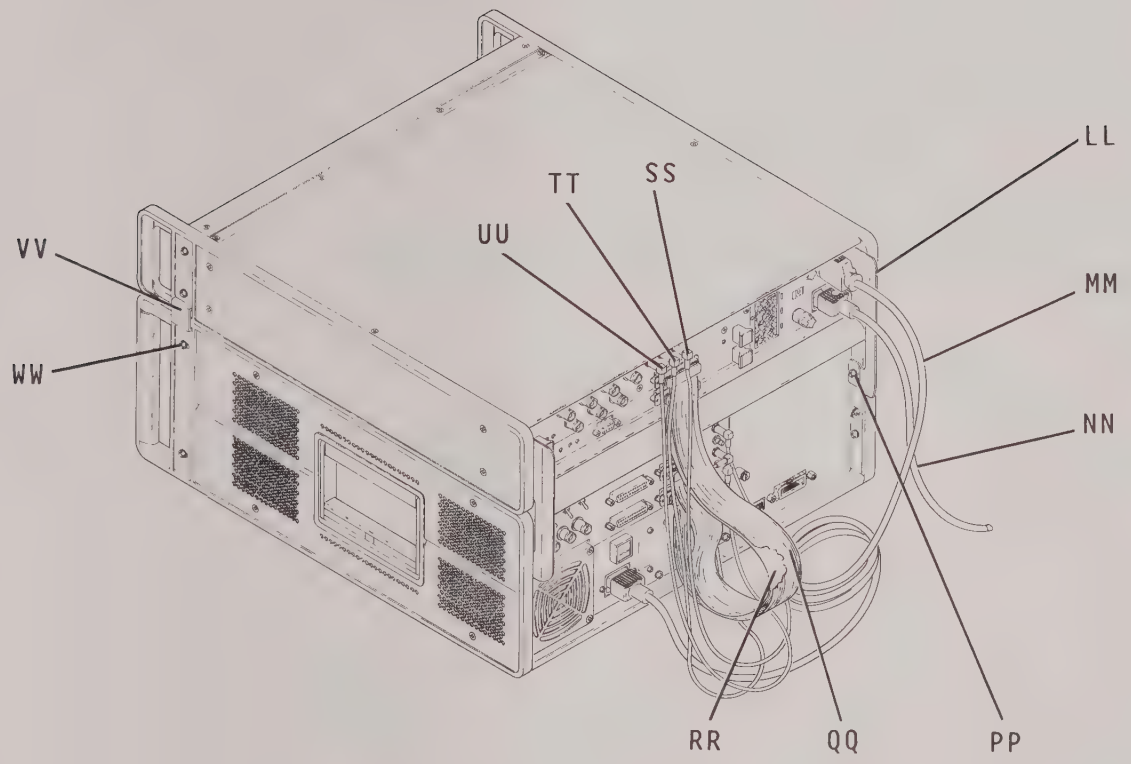
37. Adjust R12007 counterclockwise to increase spacing, clockwise to decrease spacing, until spacing noted is 2.75 µs (±25ns).

38. Select 2ND, SAVE, 1 Keys

39. Set S-1403 power to OFF, Wait a minimum of 30 sec, Set S-1403 power to ON.

40. Select 2ND, RECALL, 1 Keys.

41. Verify P2 to SPR is 2.75µs (± 25 ns).



LL.	Rear Bracket	SS.	SMB-SMB Coax Cable (J10015 to J1)
MM.	ATC-1400A Power Cable	TT.	SMB-SMB Coax Cable (J10014 to J3)
NN.	S-1403 Power Cable	UU.	SMB-SMB Coax Cable (J10011 to J4)
PP.	Attaching Screws	VV.	Front Bracket
QQ.	25 Pin D-Style Ribbon Cable (J10011 to J5 [AUXILIARY])	WW.	Attaching Screws
RR.	25 Pin D-Style Ribbon Cable (J10010 to J6 [IFR BUS])		

Figure 5 S-1403 to ATC-1400A Interface

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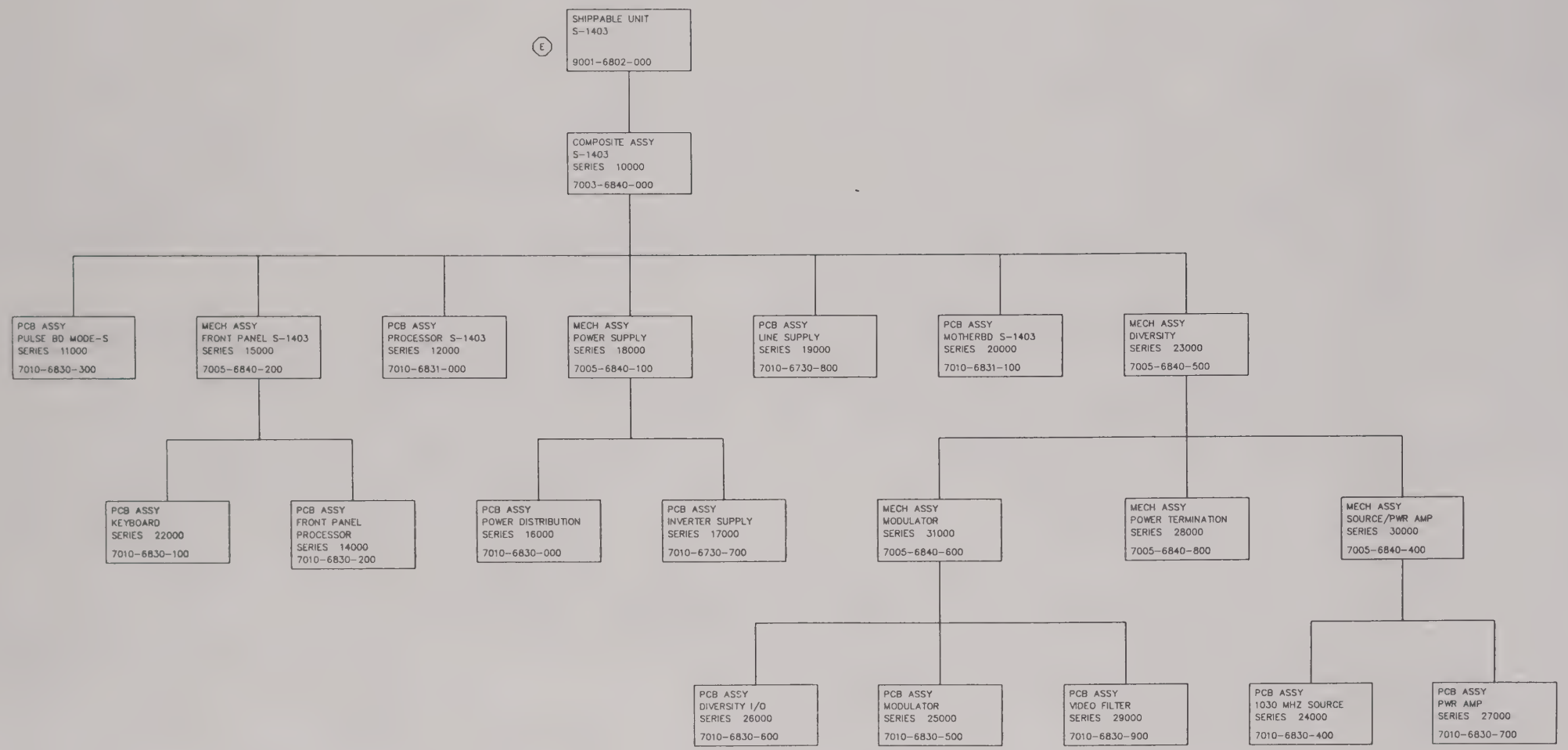


DRAWN D HAYNES 4-22-88	IFR SYSTEMS INC. 10000 West Twin Bk. Wichita, Kansas 67214
CHECKED J RYMER 7-27-88	TITLE PRODUCT STRUCTURE S-1403 MODE S
APPROVED P HARRIS 7-27-88	SIZE D · DWG. NO. 7003-6840-000 · REV G
	SCALE DO NOT SCALE · FSCM 51190 · SHEET 4 OF 5

DATE	REV	CHANGE	APVD
		SEE SHEET ONE	

REAR PANEL (REF ONLY) 10000

IFR BUS J10011 J10012

AUX J10010

EXT MOD IN J10003 | EXT SYNC IN J10004 | ATCRBS/ MODE S DISC OUT J10005 | DIVERSITY VIDEO OUT J10006 | SCOPE TRIG OUT J10007 | EXT SYNC OUT J10008 | PREPULSE OUT J10009 | RF VERNIER OUT J10013 | MEASUREMENT GATE OUT J10014 | DPSK OUT J10015

PROCESSOR PCBD ASSY 7010-6831-000 SERIES 12000 — P12001 / J12001

PULSE PCBD ASSY 7010-6830-300 SERIES 11000 — P11001 / J11001

MOTHERBOARD PCBD ASSY 7010-6831-100 SERIES 20000

J20002 "TEST"

BPULSE MOD P/J20004 | BDPSK MOD P/J20003 | J20001 / P20001

6050-0361-550

6050-0361-700

6046-6780-700

6046-6780-600

6050-0560-550

6042-6880-200

F10001 (1) | F10002 (1)

J10017 AC IN L N G | J10016 SWITCHED AC OUT G N L

S10002

S10001 1 2 3 4 5 6

P/J10019 1 2 4 3 5 / 1 2 4 3 5

P/J10018 1 2 4 5 3 / 1 2 4 5 3

LINE SUPPLY PCBD ASSY 7010-6730-800 SERIES 19000 — J19001 / P19001

P/J15002

POWER SUPPLY MECH ASSY 7005-6840-100 SERIES 18000

B10001 FAN — B10001-J1 B10001-P1

P15001 / J15001

FRONT PANEL MECH ASSY 7005-6840-200 SERIES 15000

UUT XMTR J10001 | ANT B J10002

J10020 | J10021

P/J23016 VIDEO OUT | P/J23014 RF IN/OUT

P/J23003 BPULSE MOD | P/J23004 BDPSK MOD

DIVERSITY MECH ASSY 7005-6840-500 SERIES 23000

P/J23017

J23001 / P23001 | J23005 / P23005

P/J15003

STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 10000

NOTES:
(UNLESS OTHERWISE NOTED)

(1) WHEN SWITCH S10001 IS IN THE 115 VOLT POSITION
FUSE F10001 SHOULD BE A 3.0 AMP FAST-BLOW FUSE.
FUSE F10002 SHOULD BE A 1.0 AMP FAST-BLOW FUSE.

(E) WHEN SWITCH S10001 IS IN THE 230 VOLT POSITION
FUSE F10001 SHOULD BE A 3.0 AMP FAST-BLOW FUSE.
FUSE F10002 SHOULD BE A 0.5 AMP FAST-BLOW FUSE.

DRAWN D HAYNES	DATE 2-25-88	IFR SYSTEMS INC 10200 West York St., Wichita, Kansas 67215	
CHECKED S McELROY	DATE 6-14-88	TITLE CIRCUIT SCHEMATIC S-1403 INTERCONNECT	
APPROVED P HARRIS	DATE 6-14-88	SIZE D	DWG NO. 7003-6840-000 REV G
SCALE		DO NOT SCALE	FSCM 51190 SHEET 5 OF 5

DATE	REV		
5-2-88	A	DESIGN RELEASE	CKM
5/18/88	A-1	REF # 615	CKM
5-25-88	A-2	REF # 627	CKM
6-15-88	A-3	REF # 638	CKM
6-28-88	A-4	REF # 641	CKM
7-11-88	A-5	REF # 663 HV	CKM
8-24-88	B	REF # 695 HV	CKM
10-6-88	C	REF # 709 JR	CKM
11-7-88	D	REF # 713 JR	CKM
11-29-88	D	PROD REL PER ECN 11475 JR	SLP
12-19-88	E	INC ECN 11664 AO	SLP
12-29-88	F	INC ECN 11717 JR	SLP
5-1-89	G	INC RC 12439 AO	SLP

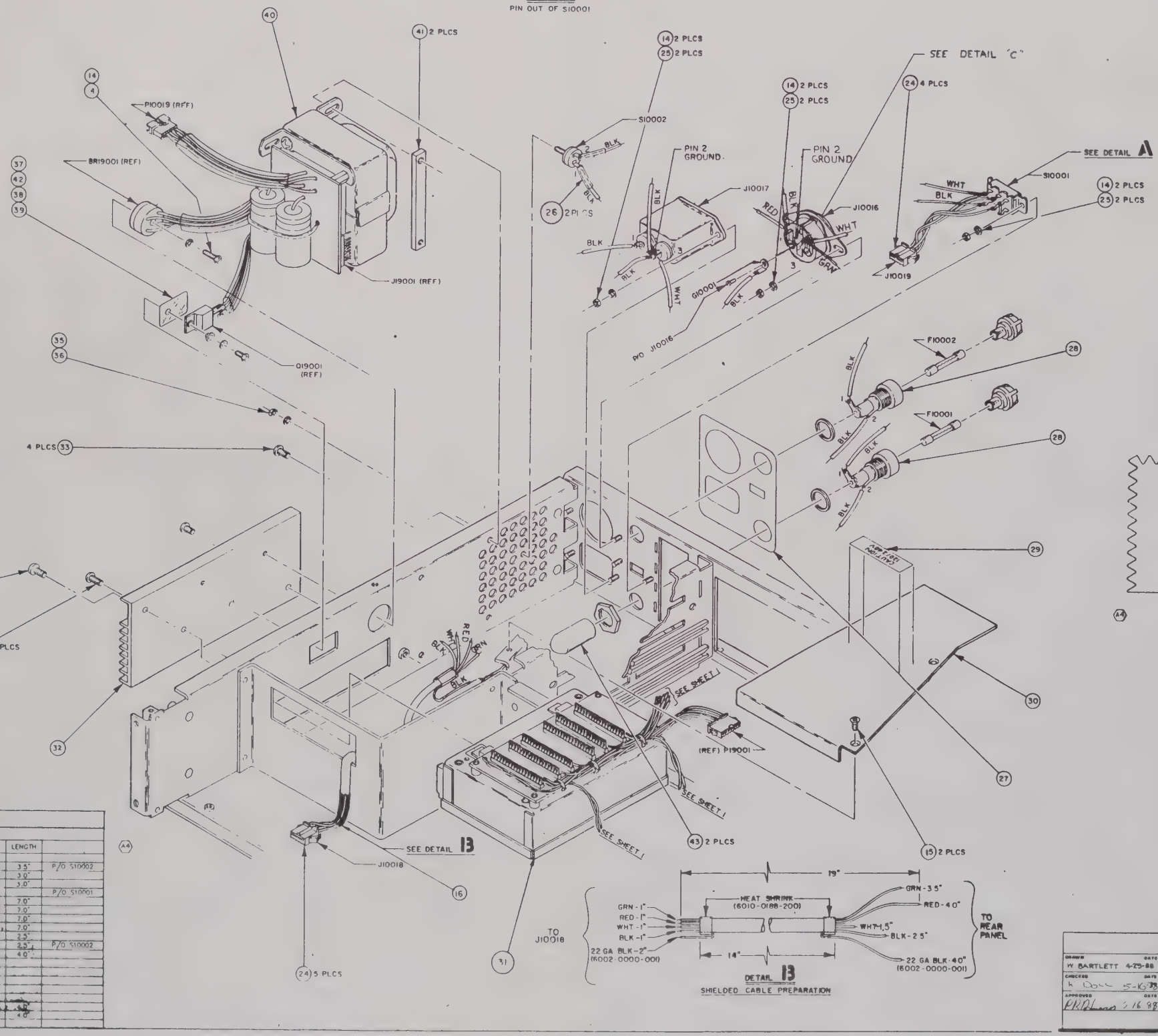
NOTES

1 COMPOSITE CONTAINS STATIC SENSITIVE COMPONENTS MUST BE HANDLED AT A STATIC CONTROLLED WORKSTATION

(15) 8 PLCS
(17)
(15) 8 PLCS
(21)
(12)
(20)
(10) 4 PLCS
(22)
(1)
(2)
(3)
(4) 2 PLCS
(5)
(6) 2 PLCS
(7) 4 PLCS
(8) 4 PLCS
(9)
(10) 4 PLCS
(11)
(12)
(13) 4 PLCS
(14) 4 PLCS
(15) 4 PLCS
(15) 2 PLCS
(17)
(18)
(19) 4 PLCS
(23) 2 PLCS
(50)
(50)
J10018 (REF)
P10018 (REF)
J15002 (REF)
P15003 (REF)
P23001 (REF)
P23005 (REF)
P15002 (REF)
J15003 (REF)
P23017 (REF) SEE SHT #3
P20001 (REF)
2506 6714 00 (REF)
B10001-P1 (REF)
J10001 (REF)
J10002 (REF)
J20001 (REF)
P15001 (REF)
J20003 (REF)
J20004 (REF)
B10001
B10001-J1

DRAWN W BARTLETT 4-25-88	IFR SYSTEMS INC	
CHECKED K Dorr 5-6-88	TITLE COMPOSITE ASSY S-1403	
APPROVED PKH 5/16/88	SIZE D	DWG NO 7003-6840-000 REV G
DO NOT SCALE DRAWING		SHEET 1 OF 3

CABLE CONNECTIONS	
FROM	TO
J10019	P10019
J10018	P10018
P19001	J19001
P20001	J20001
P15002	J15002
810001-P1	810001-J1
P15001	J15001

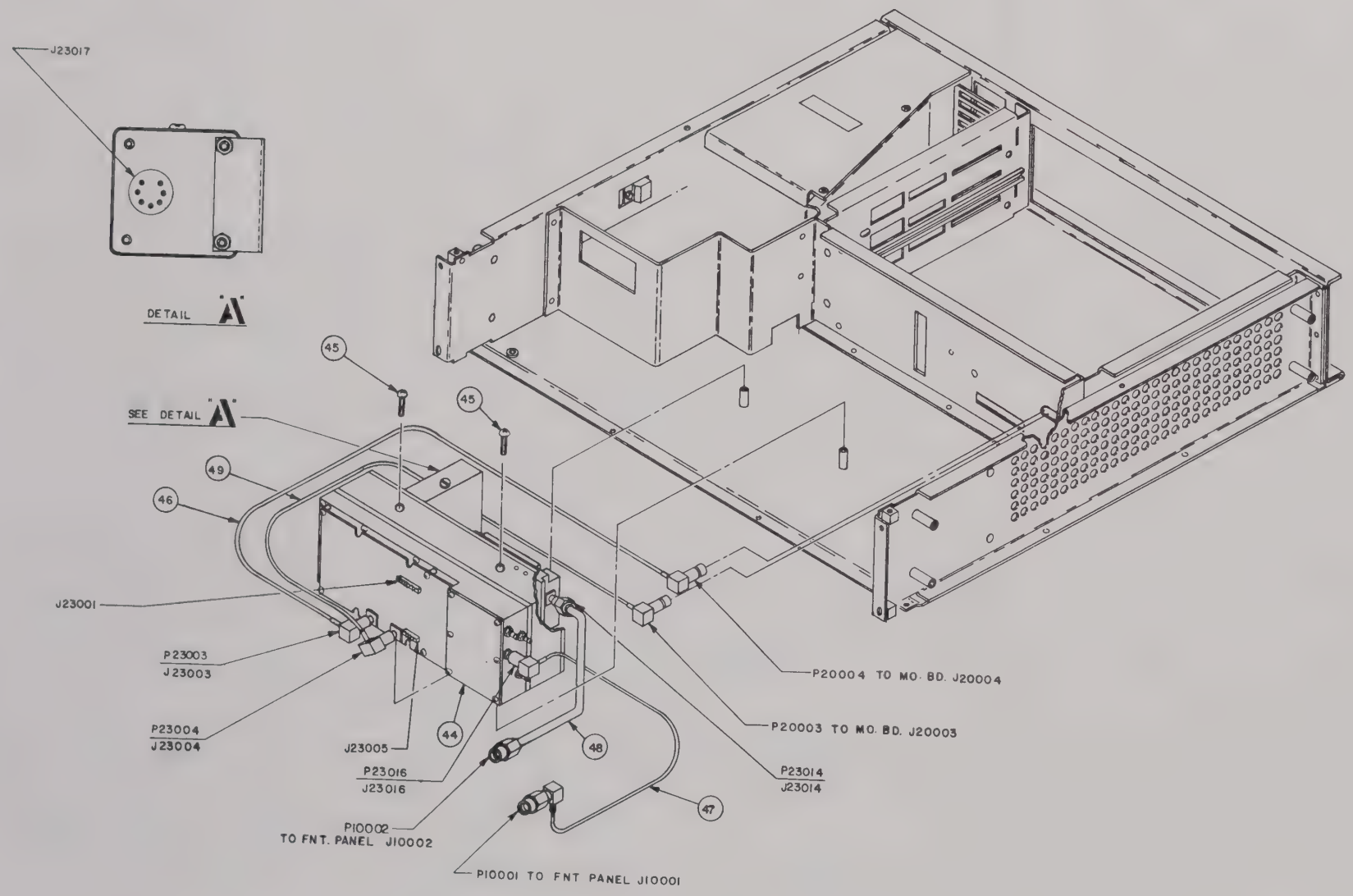


DATE	REV	CHANGE
		SEE SHEET ONE

WIRE RUNNING LIST

LINE NO	FROM TERMINAL	FROM NOTES	TO TERMINAL	TO NOTES	COLOR	AWG	LENGTH	
1	P10001-2	SC.	J10018-1		BLACK			
2	P10001-1		S10002-2	HEAT SHRINK	BLACK	18 GA	3.5"	P/O S10002
3	P10001-2		J10018-3		BLACK	22 GA	3.0"	
4	P10001-2		S10001-3		BLACK	28 GA	3.0"	
5	S10001-3		S10001-4	BUS WIRE				P/O S10001
6	P10001-2		J10019-3		BLUE	22GA	7.0"	
7	P10001-1		J10019-1		BROWN	22 GA	7.0"	
8	P10001-3		J10019-4		WHITE	22 GA	7.0"	
9	P10001-6		J10019-2		GREEN	22 GA	7.0"	
10	P10001-6		J10018-1		WHITE	22 GA	2.5"	
11	P10001-2		S10002-1	HEAT SHRINK	BLACK	18 GA	2.5"	P/O S10002
12	P10001-3	SC.	J10018-3	SHIELD WIRE	BLACK	22 GA	4.0"	
13	P10001-3	SC.	J10018-2		WHITE			
14	P10001-6	SC.	J10018-4		GREEN			
15	P10001-3	SC.	J10018-5		RED			
16	B10001	P/O FAN	BLACK WIRE	B10001-1				
17	B10001	P/O FAN	RED WIRE	B10001-2				
18	J10018-2		J10016-2		BLACK	22 GA	4.0"	
19	J10018-3	SHIELD WIRE	J10016-3		BLACK	22 GA	4.0"	
20	J10018-5	N/C						

DRAWN W BARTLETT 4-29-98	IFR SYSTEMS INC
CHECKED K DOLL 5-16-98	TITLE COMPOSITE ASSY S-1403
APPROVED P.K. Dolan 5/16/98	SIZE D — DWG NO 7003-6840-000 — REV G
SCALE NONE	WEIGHT — SHEET 2 of 5



IFR SYSTEMS INC

DRAWN	W BARTLETT 6-25-88
CHECKED	K Dell 5-16-88
APPROVED	RRHunt 5/16/88
TITLE	COMPOSITE ASSY S-1403
SIZE	D
DWG NO	7003-6840-000
REV	G
SCALE	NONE
SHEET	3 OF 5

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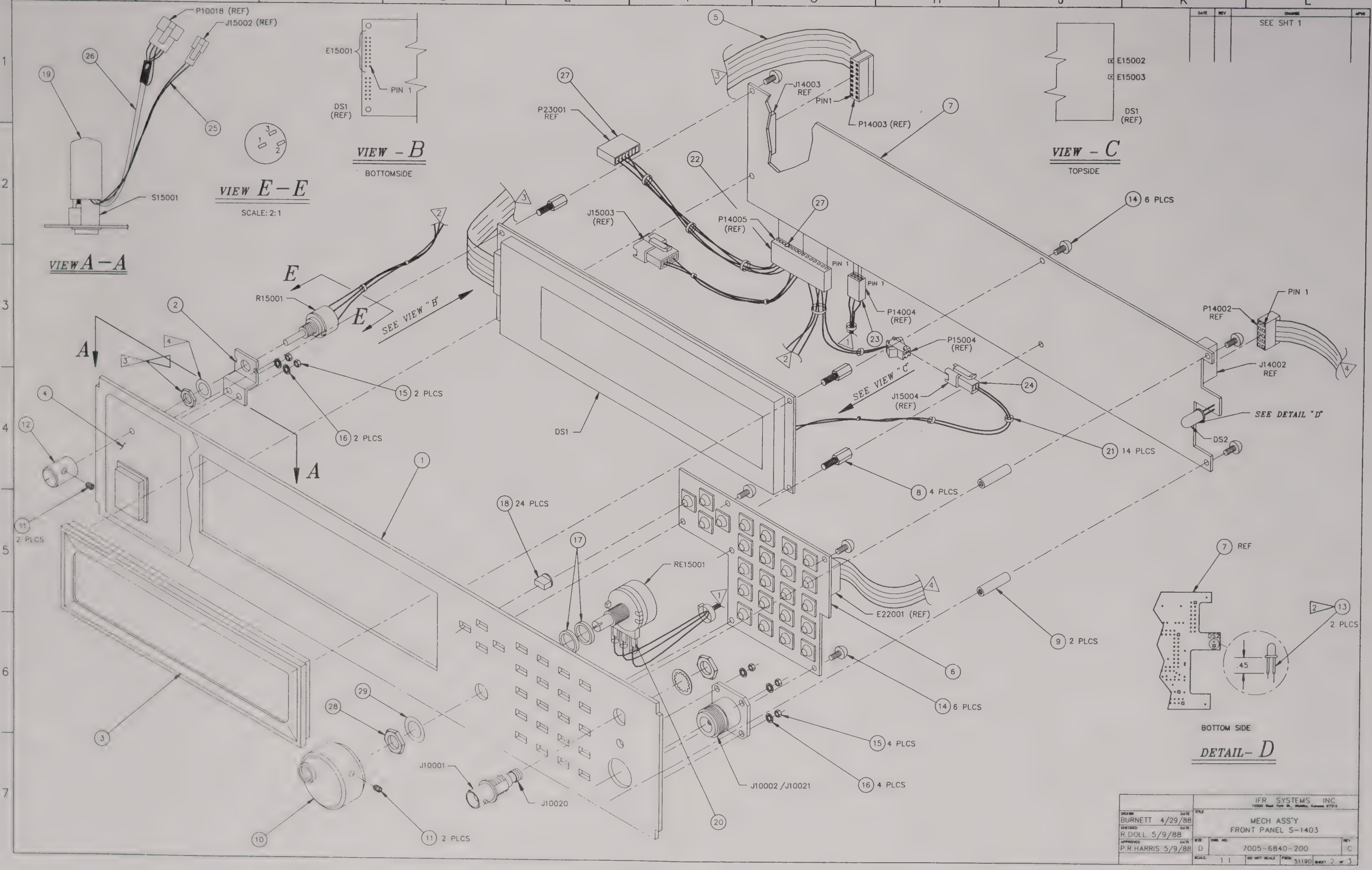
ASSY NO.	REVISION	DESCRIPTION
7003-6840-000	G	COMPOSITE ASSY, S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	1.00	6002-0000-001	WIRE,HOOK,TFE,22GA, 7S,BLACK
	.60	6002-0000-002	WIRE,HOOK,TFE,22GA, 7S,BROWN
	.30	6002-0000-003	WIRE,HOOK,TFE,22GA, 7S,RED
	.90	6002-0000-006	WIRE,HOOK,TFE,22GA, 7S,GREEN
	.60	6002-0000-007	WIRE,HOOK,TFE,22GA, 7S,BLUE
	.90	6002-0000-010	WIRE,HOOK,TFE,22GA, 7S,WHITE
*01	1.00	1414-6750-200	COVER,TOP
*02	1.00	7010-6830-300	PCB ASSY, PULSE BD MODE-S
*03	1.00	7010-6831-000	PCB ASSY, PROCESSOR S-1403
*04	3.00	2803-0438-006	SCREW,4-40 X 7/16 PPHM
*05	1.00	7010-6831-100	PCB ASSY, MOTHERBD S-1403
*06	3.00	2803-0500-006	SCREW,4-40 X 1/2 PPHM
*07	4.00	4104-0000-001	CARD GUIDE NATURAL 23071-5
*08	4.00	2803-1188-006	SCREW,4-40 X 1 3/16 PPHMS
*09	1.00	1414-6752-000	COVER,RIGHT SIDE
*10	8.00	2804-0500-003	SCREW,6-32 X 1/2 PFHM
*11	2.00	1414-6752-100	COVER,RACK MTG
*12	2.00	1402-6750-900	RAIL,SIDE
*13	4.00	2850-0000-008	NUT,HEX,REG PAT,4-40
*14	11.00	2840-0000-003	WASHER,LOCK,INT TOOTH,4
*15	16.00	2803-0250-003	SCREW,4-40 X 1/4 PFHM
*16	1.60	6040-7730-504	CABLE,SQ1,4C,24GA
*17	2.00	2410-6751-300	BAR,TRIM FRONT PANEL
*18	1.00	7005-6840-200	MECH ASSY,FRONT PANEL S-1403
*19	4.00	1421-0002-438	FOOT,RBR HEMI,W/6-32 X 1/4 STD
*20	1.00	1414-6751-900	COVER,LEFT SIDE
*21	1.00	6500-6880-600	MINOR ASSY,CHASSIS
*22	1.00	2601-6751-800	FILTER,FAN
*23	2.00	2114-9001-001	CONTACT PIN,26-22GA,SYM001T0.6
*24	9.00	2114-9002-001	CONTACT SKT,26-22GA,SHF001T8SS
*25	6.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*26	.15	6010-0188-200	TUBING,HS, 3/16 ID,BLACK
*27	1.00	2403-6751-400	OVERLAY,REAR PANEL
*28	2.00	5105-0501-000	HOLDER,FUSE,BUSSMAN HTA
*29	1.00	2400-8002-000	LABEL,CAUTION,120/240V
*30	1.00	1414-6751-700	COVER,HIGH VOLTAGE
*31	1.00	7005-6840-100	MECH ASSY, POWER SUPPLY
*32	1.00	5400-6751-500	HEATSINK,POWER SUPPLY
*33	6.00	2804-0313-006	SCREW 6-32X5/16 PHIL BIND HD
*34	2.00	2804-0250-006	SCREW,6-32 X 1/4 PPHM
*35	1.00	2840-0000-001	WASHER,LOCK,INT TOOTH,6
*36	1.00	2850-0000-002	NUT,HEX,SMALL PAT,6-32
*37	1.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*38	1.00	2840-6153-500	WASHER PPS SHOULDER
*39	1.00	4835-0000-103	INSUL,MICA,TO-220 TRANS,DF103B
*40	1.00	7010-6730-800	PCB ASSY,LINE SUPPLY
*41	2.00	1400-5157-000	BRACKET,XFMR MTG BAR,
*42	1.00	2840-0000-009	WASHER,FLAT,4,MS15795-803
*43	2.00	6007-0000-001	TIP,VINYL,RED,.375ID,1.00LG
*44	1.00	7005-6840-500	MECH ASSY, DIVERSITY
*45	2.00	2804-1375-006	SCREW,6-32 X 1 3/8 PPHMS
*46	1.00	6050-0361-550	COAX ASSY,FLEXIBLE,RG 316/U
*47	1.00	6050-0560-550	COAX ASSY, 316. RM SMA/RF SMB

ASSY NO.	REVISION	DESCRIPTION
7003-6840-000	G	COMPOSITE ASSY, S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*48	1.00	6042-6880-200	COAX ASSY,S/R,FT PNL/PWR TERM
*49	1.00	6050-0361-700	COAX ASSY,FLEXIBLE,RG 316/U
*50	.00	1050-0000-170	TAPE,DBL BKD VINYL FOAM,3/4"
B10001	1.00	2600-0007-000	FAN, 12VDC,2.362SQ,17.7CFM
B10001-J1	1.00	2115-9001-002	CONN,RECT.098 RCPT 2-P,SMR02VB
F10001	1.00	5106-0300-600	FUSE,1.25,GL,MEDI,250V, 3.0 A
F10002	1.00	5106-4501-000	FUSE, 1.0 A,250V,FAST,1.25 GL
G10001	1.00	2850-0000-015	LUG,GND,4
J10016	1.00	2220-1001-000	CONN,POWER,AC PRIMARY,125V,15A
J10017	1.00	2220-1021-100	CONN,PWR,FLTR AC,MALE RCPT
J10018	2.00	2115-9002-005	CONN,RECT.098 PLUG 5-P,SMP05VB
J10019	-.--	2115-9002-005	CONN,RECT.098 PLUG 5-P,SMP05VB
S10001	1.00	5135-2025-500	SWITCH,SLIDE,DPDT,115V/230V
S10002	1.00	4800-0000-012	THERMOSTAT,SPST,5A,160-170+-5


P10018 (REF)
J15002 (REF)
S15001
VIEW A–A
VIEW E–E
SCALE: 2:1
E15001
PIN 1
DS1 (REF)
VIEW – B
BOTTOMSIDE
E15002
E15003
DS1 (REF)
VIEW – C
TOPSIDE
SEE SHT 1
P23001 REF
J14003 REF
PIN1
P14003 (REF)
J15003 (REF)
P14005 (REF)
P14004 (REF)
P15004 (REF)
J15004 (REF)
6 PLCS
R15001
SEE VIEW "B"
SEE VIEW "C"
2 PLCS
2 PLCS
DS1
P14002 REF
J14002 REF
SEE DETAIL "D"
DS2
14 PLCS
4 PLCS
24 PLCS
RE15001
E22001 (REF)
2 PLCS
6 PLCS
4 PLCS
4 PLCS
J10001
J10020
J10002 /J10021
2 PLCS
REF
2 PLCS
.45
BOTTOM SIDE
DETAIL– D
IFR SYSTEMS INC
DRAWN BURNETT 4/29/88
CHECKED R DOLL 5/9/88
APPROVED P R HARRIS 5/9/88
TITLE MECH ASS'Y FRONT PANEL S-1403
SIZE D
DWG. NO. 7005-6840-200
REV. C
SCALE 1 1
DO NOT SCALE
FSCM 51190
SHEET 2 OF 3

DATE	REV	CHANGE	APVD
	A	DESIGN RELEASE	CJKM
3/12/88	A-1	REF #627	CJKM
4/6/88	A-2	REF #650	CJKM
4/21/88	A-3	REF #662	CJKM
4/30/88	B	REF #674	CJKM
5/19/88	C	REF #676 & #683	CJKM
7/28/88	C	PROD REL PER ECN 11475 JR	CJKM

WIRE RUNNING LIST

TERMINAL	NOTES	TERMINAL	NOTES	COLOR	AWG	LENGTH	NOTES
ITEM 23-1		RE15001-1		WHT/BRN	26	8"	
-2		-2		WHT/RED			
-3		-3		BLK			
ITEM 22-1		P23001-1		WHT/BLU	26	7"	
-2		-2		WHT/BLK	26	7"	
-3		-3		WHT/VIO	26	7"	
-4		KEY					
-5		P23001-4		WHT/GRN	26	7"	
-6		N/C					
-7		J15003-4		YEL	22	3.5"	
-8		N/C					
-9		J15003-2		RED	22	3.5"	
-10		J15003-1		BLK	22	3.5"	
-11		R15001-2		WHT/RED	26	6"	
-12		R15001-1		WHT	26	6"	
-13		R15001-3		BLK	26	6"	
-14		P15004-1		BLK	26	3.8"	
-15		P15004-2		WHT/BLK	26	3.8"	
P23001-1							
-2							
-3							
-4							
-5		N/C					
-6		KEY					
-7		N/C					
J15003-1							
-2							
-3		N/C					
-4							
-5		N/C					
ITEM 24-1		E15003 (DS1)		BLK	26	5.5"	
ITEM 24-2		E15002 (DS1)		WHT/BLK	26	5.5"	
S15001-1		S15001-3		RED	26	.5"	
ITEM 26-1	SQ1	S15001-NO(RIGHT)		BLK	24	8.0"	
-2	SQ1	S15001-NO(LEFT)		WHT	24	8.0"	
-3	SQ1 SHELL	N/C		BLK	26		
-4	SQ1	S15001-C(LEFT)		GRN	24	8.0"	
-5	SQ1	S15001-C(RIGHT)		RED	24	8.0"	
ITEM 25-1		S15001-2		BLK	26	6.5"	
-2		S15001-3		RED	26	6.5"	

SEE ITEM 22 FOR CONNECTIONS

SEE ITEM 22 FOR CONNECTIONS

NOTES:

1. TRIANGLE INDICATES CONTINUATION OF CABLE.

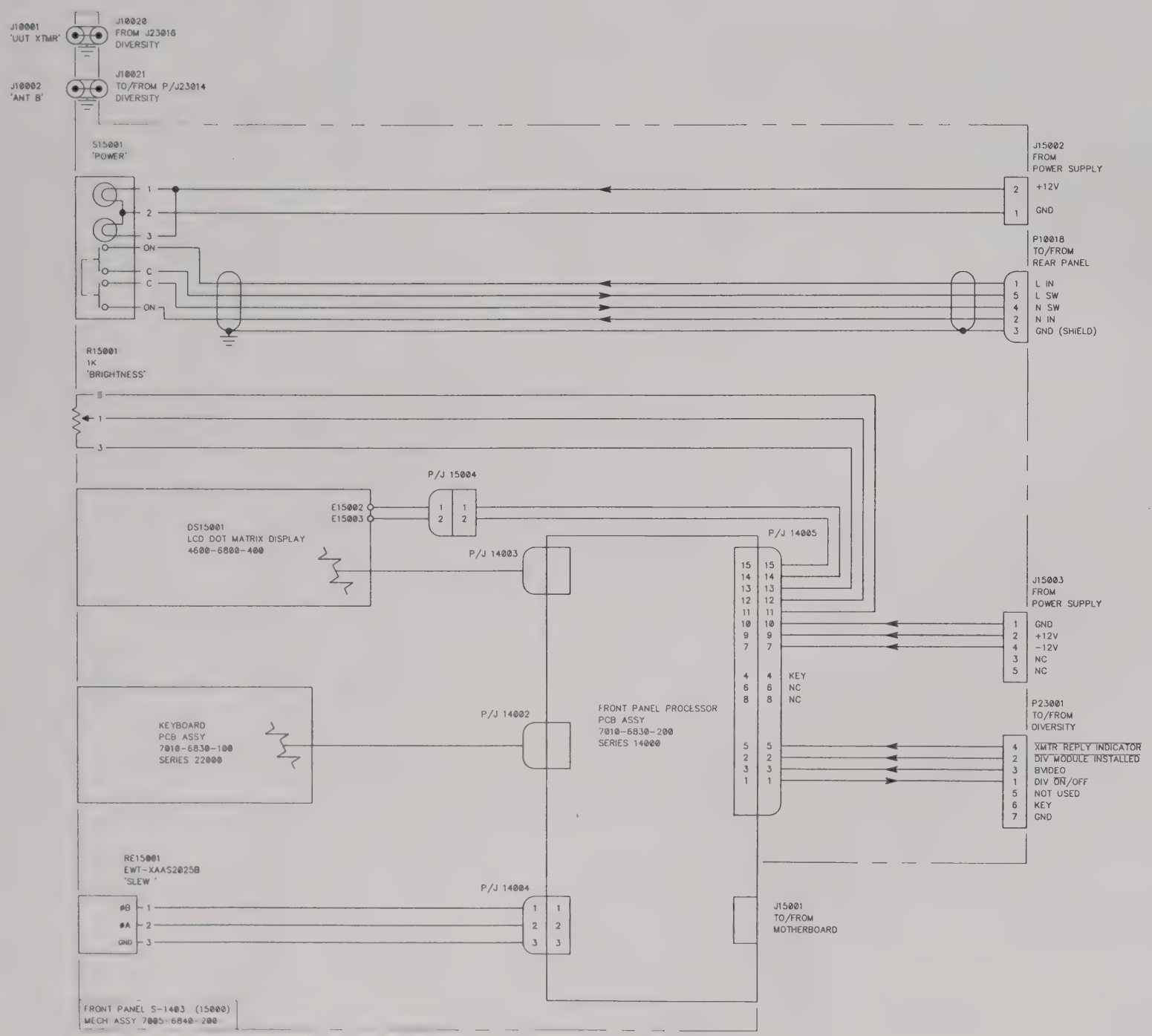
2 DS2 MOUNTS ON BOTTOM SIDE OF PCB, CUT .45 INCH 22 GA. SLEEVING (ITEM 13) FOR EACH LEAD FOR PROPER SPACING SHORT LEAD GOES TO SQUARE PAD.

3 FREE STOCK HARDWARE (DPN 4750-7616-800).

4 FREE STOCK HARDWARE (DPN 4751-0203-003).

	IFR SYSTEMS INC. 10800 West Park Dr., Wichita, Kansas 67215
DRAWN BURNETT 4/29/88	TITLE MECH ASS'Y FRONT PANEL S-1403
CHECKED R DOLL 5/9/88	
APPROVED P R HARRIS 5/9/88	SIZE D; DWG. NO. 7005-6840-200; REV C
	SCALE 1:1; DO NOT SCALE; FSCM 51190; SHEET 1 OF 3

DATE	REV	CHANGE	APVD



STANDARDS.
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 15000

NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED.
DS1, J4, RE1, S1, R1

2. REFERENCE NUMBERS NOT USED.

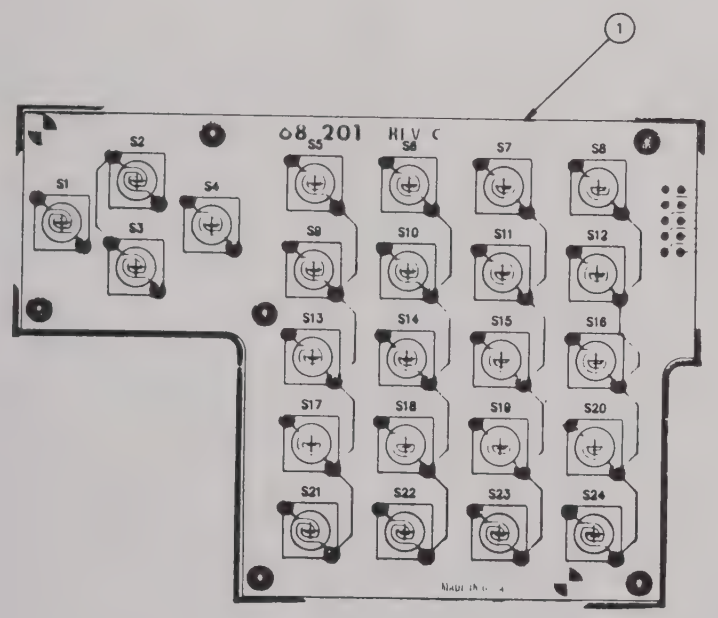
DRAWN D HAYNES 6/6/88	IFR SYSTEMS INC 10700 West York St. Wichita, Kansas 67215	
CHECKED S McELROY 6/14/88	TITLE CIRCUIT SCHEMATIC FRONT PANEL S-1403	
APPROVED P HARRIS 6/14/88	SIZE D	DWG. NO. 7005-6840-200 REV C
	SCALE: DO NOT SCALE	FSCM 51190 SHEET OF

PRINT DATE 89/08/25 BILL OF MATERIAL LISTED BY REF. DESIG. PAGE 1

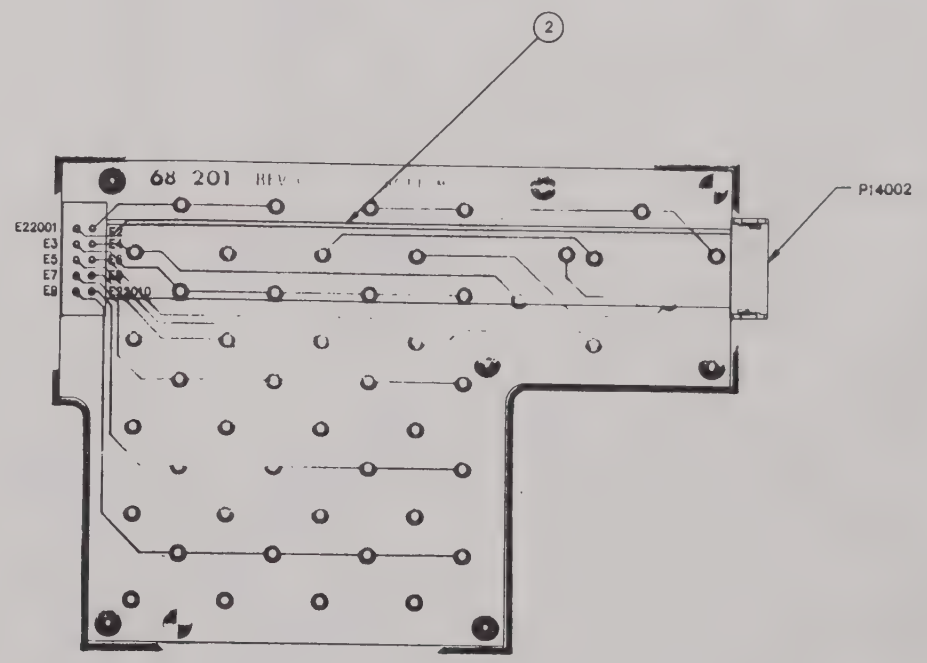
ASSY NO.	REVISION	DESCRIPTION
7005-6840-200	C	MECH ASSY,FRONT PANEL S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1405-6850-000	PANEL,FRONT
*02	1.00	1400-5355-800	BRKT,POT MTG
*03	1.00	2406-6850-800	BEZEL
*04	1.00	2403-6850-100	OVERLAY,FRONT PANEL S-1403
*05	1.00	6045-6880-100	RBN CA ASSY LCD DISPLAY/FP PCB
*06	1.00	7010-6830-100	PC BD ASSY, KEYBOARD
*07	1.00	7010-6830-200	PCB ASSY,FRONT PANEL PROCESSOR
*08	4.00	2850-6851-700	STANDOFF,.34LG,.188 HEX,4-40ID
*09	2.00	2800-7600-175	SPACER,AL,.187OD,4-40ID,.75 LG
*10	1.00	2402-5456-500	KNOB,1.00 OD.250 ID.60 LG
*11	4.00	2803-0125-001	SCREW,4-40 X 1/8 SHS
*12	1.00	2402-0921-900	KNOB,RND, .438OD,.128ID,.520LG
*13	.13	6011-0027-001	TUBING,TF,22 AWG,NATURAL,TW
*14	12.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*15	6.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*16	6.00	2840-0000-003	WASHER,LOCK,INT TOOTH,4
*17	2.00	2800-7600-114	SPACER,AL,.500OD,.375ID,.080LG
*18	24.00	2402-5053-001	PUSHBUTTON
*19	1.00	5114-0000-000	BOOT,SWITCH
*20	1.20	6010-0125-100	TUBING,HS, 1/8 ID,CLEAR
*21	14.00	6004-6005-400	TY-RAP,4.0 LG
*22/P14005	1.00	6046-6880-500	CABLE ASSY,FT PNL BD S-1403
*23/P14004	1.00	6046-6880-400	CABLE ASSY,FT PNL/ENC SW S1403
*24/J15004	1.00	6046-6880-300	CABLE ASSY,DSPL/FT PNL S-1403
*25/J15002	1.00	6046-6880-200	CABLE ASSY,PWR SW LAMP S-1403
*26/P10018	1.00	6046-6880-100	CABLE ASSY, POWER SWITCH
*27	2.00	2127-9900-100	KEY,POLARIZIN,MOLEX 15-04-9209
*28	1.00	2850-0000-033	NUT,HEX,SMALL PAT,3/8-32
*29	1.00	2840-7600-205	WASHER,ALUM,.50OD,.375ID,.020T
DS15001	1.00	4600-6800-400	DSPL,DOT MATRIX LCD, LM SERIES
DS15002	1.00	4950-0201-200	OPTO LED,HLMP-3507,GREEN W/SKT
J10001	1.00	2200-0410-100	CONN,ADAPT,F BNC/F SMA,STR BHD
J10002	1.00	2200-6950-100	CONN,F N/SMA F,STR BULKHEAD
R15001	1.00	4750-7616-100	POT, 1K OHM, RV6NAYSD102A .78
RE15001	1.00	4795-0000-002	ENCODER,ROTARY CONTACT 25-PIR
S15001	1.00	5115-0000-007	SWITCHPUSHBUTTON90EAIC4F3J1RN2

DATE	REV	CHANGE	APVD
3/18/88	C	DESIGN RELEASE	CJK/MJ
7/29/88	C	PROD REL PER ECN 11475 JR	



TOP SIDE

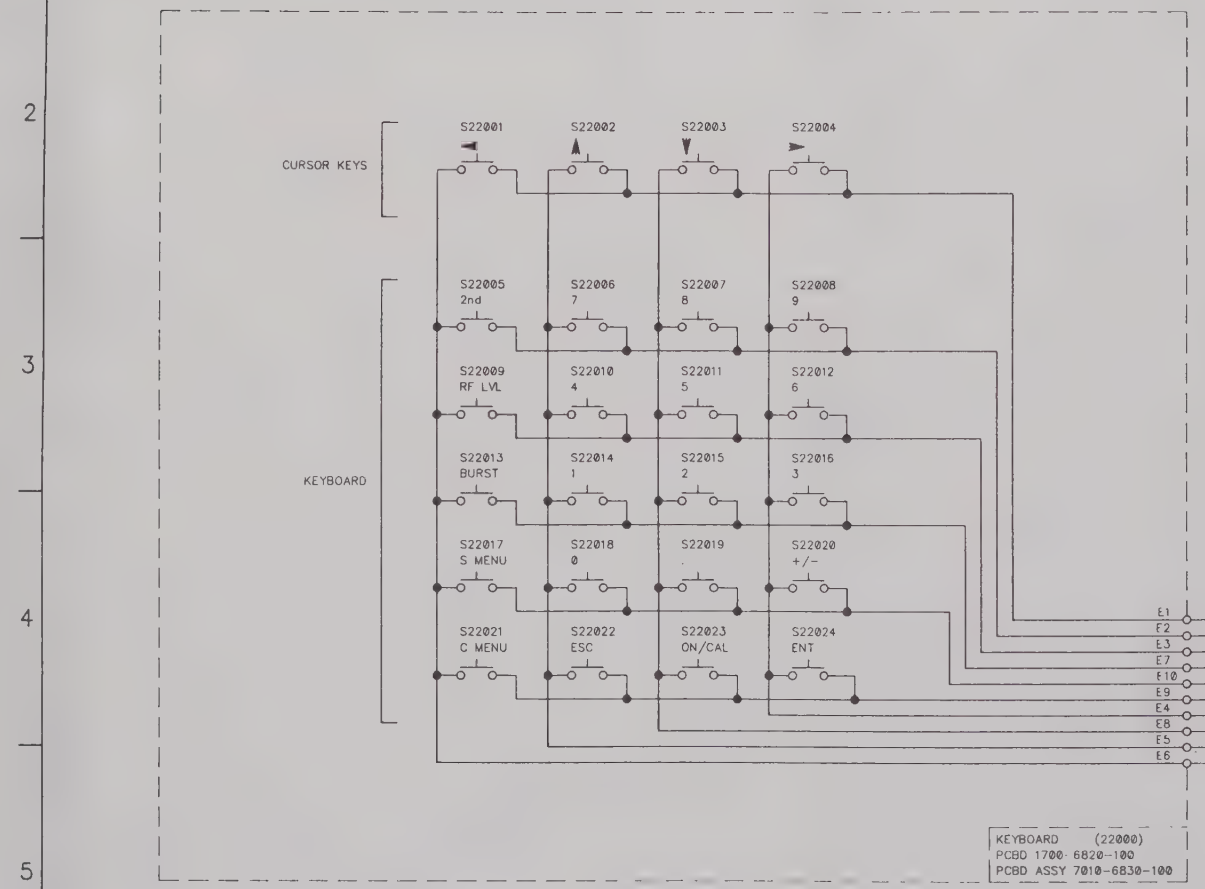


BOTTOM SIDE

NOTES:
1. ALL REF NO'S CARRY AN ASSIGNED DESIGNATOR SERIES. THIS DRAWING CARRIES SERIES 22000 (i.e. R1 IS R22001).
2. PADS AND FEED THRU'S ARE REPRESENTED BY "X" "□" INDICATES PIN 1 OR POLARITY.

	IFR SYSTEMS INC
DRAWN BURNETT 3/18/88	TITLE PC BD ASS'Y KEYBOARD
CHECKED R.CRAWFORD 4/4/88	
APPROVED P.R.HARRIS 4/5/88	SIZE D · DWG. NO. 7010-6830-100 · REV C
	SCALE 2:1 · DO NOT SCALE · FSCM 51190 · SHEET 1 OF 2

DATE	REV	CHANGE	APVD
		SEE SHEET ONE	



STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 22000

NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED.
S22024 E22010

2. REFERENCE NUMBERS NOT USED.

KEYBOARD (22000)
PCBD 1700-6820-100
PCBD ASSY 7010-6830-100

IFR SYSTEMS INC
10200 West York St., Wichita, Kansas 67215

DRAWN D HAYNES DATE 3-3-88	TITLE	CIRCUIT SCHEMATIC S-1403 KEYBOARD
CHECKED J RYMER DATE 3-3-88		
APPROVED P HARRIS DATE 3-3-88	SIZE C	DWG NO 7010-6830-100 REV C
	SCALE	DO NOT SCALE FSCM 51190 SHEET 2 OF 2

ASSY NO.	REVISION	DESCRIPTION
7010-6830-100	C	PC BD ASSY, KEYBOARD

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-100	PC BD, KEYBOARD
*02	1.00	6045-6880-000	RBN CA ASSY,KEYBD/F.P. PC BD
S22001	24.00	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22002	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22003	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22004	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22005	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22006	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22007	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22008	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22009	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22010	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22011	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22012	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22013	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22014	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22015	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22016	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22017	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22018	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22019	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22020	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22021	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22022	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22023	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD
S22024	-.--	5136-0001-000	SWITCH,COND POLYMER MEMB KEYBD

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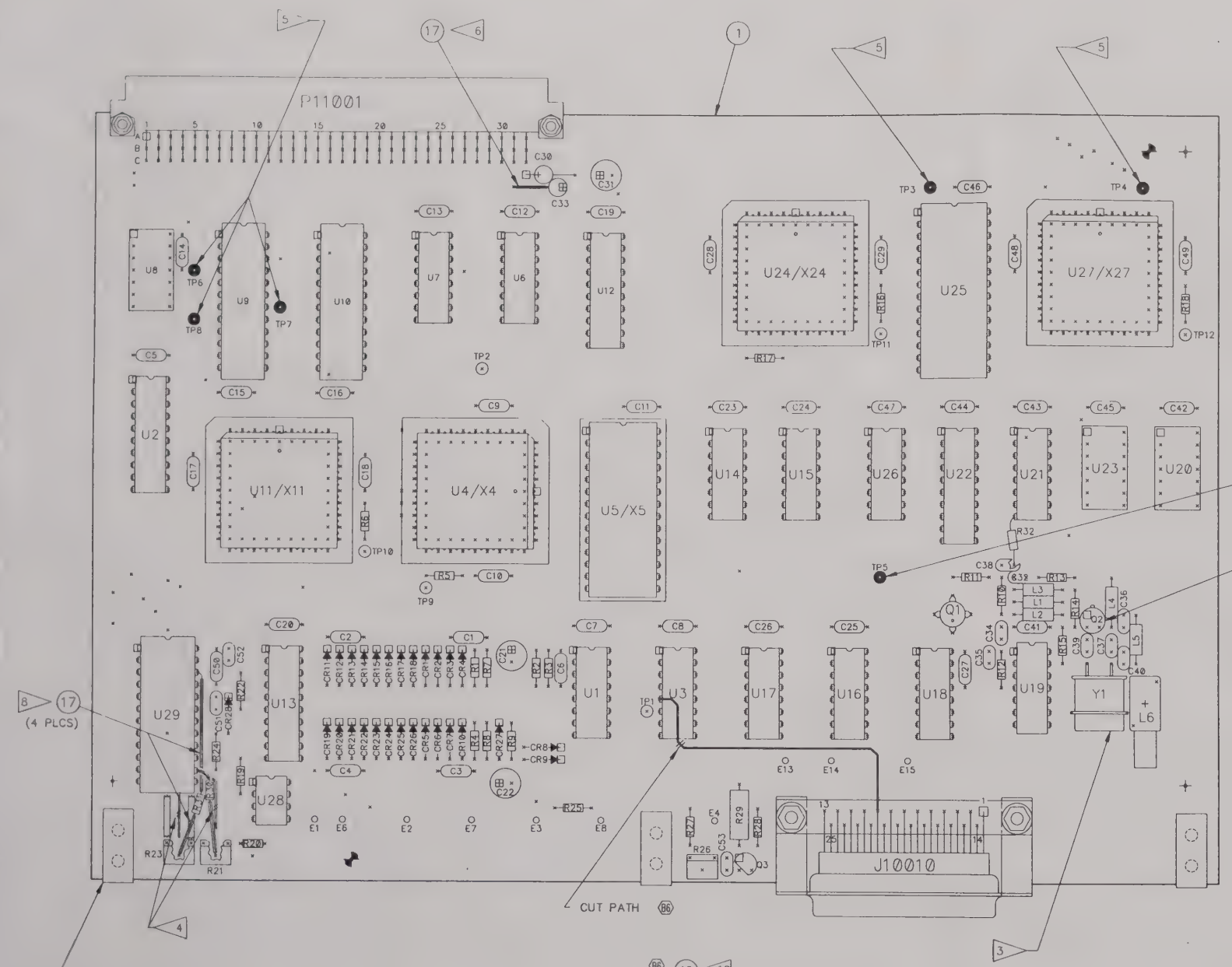
DATE	REV	CHANGE	APVD
8/29/88	B7	INC ECN 11526 JR	
4/25/89	B8	INC ECN 12292 SCR	

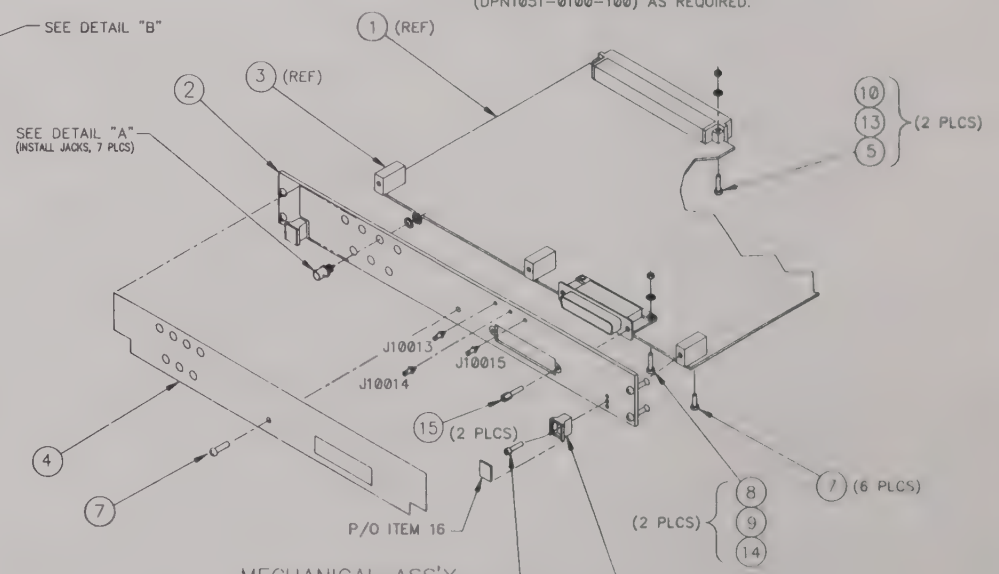
DATE	REV	CHANGE	APVD
4/26/88	B	DESIGN RELEASE	CRM
4/26/88	B-1	INC REF Nº 654	CRM
4/26/88	B-2	INC REF Nº 665	CRM
5/26/88	B-3	INC REF Nº 699	CRM
6/17/88	B-4	INC REF Nº 708 & 708A	CRM
7/8/88	B-5	INC REF Nº 715	CRM
7/28/88	B-5	PROD REL PER ECN 11475 JR	
8/9/88	B-6	INC ECN 11492 JR	

NOTES:

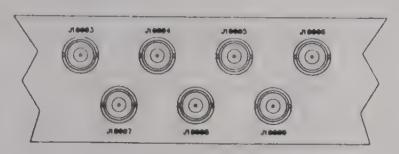
1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES, THIS DWG. CARRIES SERIES 11000 (i.e., R1 IS R11001)
2. THIS PCB ASS'Y INCLUDES STATIC SENSITIVE DEVICES AND SHOULD BE HANDLED IN A STATIC CONTROLLED ENVIRONMENT AT ALL TIMES

3. CRYSTAL CASE MUST NOT BE HEATED. DO NOT ALLOW SOLDER TO FLOW OR COME IN CONTACT WITH CRYSTAL CASE.
4. CUT PATHS AS SHOWN (2 PLCS)
5. INSTALL TEST POINTS IN TP3 THRU TP8
6. SLEEVE LEAD OF C33 WITH ITEM 17.
7. PADS AND FEED THRU'S ARE REPRESENTED BY "X", "□" INDICATES PIN 1 OR POLARITY.
8. SLEEVED LEADS OF R30 & R31 CONNECTED TO MIDDLE LEGS OF POTS R21 & R23. POTS (R21 & R23) MUST MOUNT AS FLUSH TO PC BD AS POSSIBLE.
9. SLEEVE LEADS OF RESISTORS R35, R36 AND R38 WITH ITEM 17.
10. INSTALL JUMPERS 3 PLCS, USE TAKPAK (DPN1051-0100-100) AS REQUIRED.

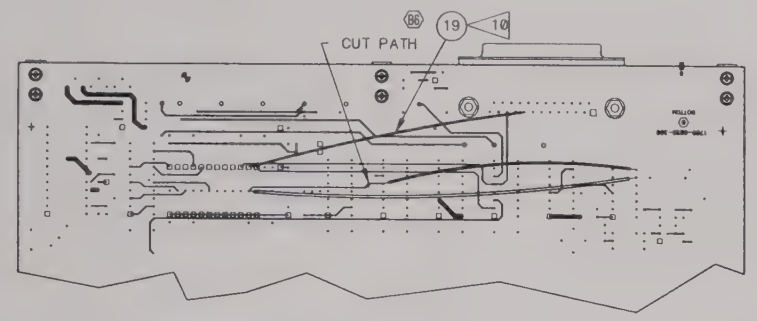




MECHANICAL ASS'Y
NOT TO SCALE



DETAIL "A"



WIRE RUNNING LIST			
FROM	TO	SIZE	LENGTH
E1	J10003	ITEMS 17 & 18	AS REQUIRED
E2	J10004	ITEMS 17 & 18	AS REQUIRED
E3	J10005	R36	
E4	J10006	R38	
E6	J10007	R33	
E7	J10008	R34	
E8	J10009	R37	
E13	J10013	ITEMS 17 & 18	AS REQUIRED
E14	J10014	R35	
E15	J10015	ITEMS 17 & 18	AS REQUIRED

Q2, BOTTOM VIEW
(NOT TO SCALE)

DETAIL "B"

DRAWN SIGLER 4/15/88	IFR SYSTEMS, INC.	
CHECKED R CRAWFORD 4/26/88	TITLE: PC BD ASSY, PULSE BD MODE-S	
APPROVED P.R. HARRIS 4/26/88	SIZE D	DWG. NO. 7010-6830-300
SCALE 2:1	DO NOT SCALE	FSCM 51190 SHEET 1 OF 3

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ASSY NO. 7010-6830-300 REVISION B8 DESCRIPTION PCB ASSY, PULSE BD MODE-S

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-300	PC BD, PULSE, MODE-S
*02	1.00	1414-6851-100	COVER, PULSE MODE-S
*03	3.00	2100-6751-600	BLOCK,PC BD MTG
*04	1.00	2400-6851-000	LABEL, PULSE PC ASSY
*05	2.00	2801-0438-006	SCREW,2-56 X 7/16 PPHM
*06	2.00	2803-0250-002	SCREW,4-40 X 1/4 SHC
*07	7.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*08	2.00	2803-0313-006	SCREW,4-40 X 5/16 PPHM
*09	2.00	2840-0000-003	WASHER,LOCK,INT TOOTH,4
*10	2.00	2840-0000-004	WASHER,LOCK,INT TOOTH,2
*13	2.00	2850-0000-012	NUT,HEX,SMALL PAT,2-56
*14	2.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*15	2.00	2850-7601-301	SCREW,.188L4-40.19HH,4-40X.300
*16	2.00	1407-0000-003	HANDLE,FT PNL,GREY PLASTIC
*17	1.20	6011-0022-001	TUBING,TF,24 AWG,NATURAL,TW
*18	.00	1050-0000-074	WIRE,BUS,TINNED COPPER,24GA
*19	1.10	6000-0002-000	WIRE,WRAP,KYNAR,30 AWG,RED
*U11005	1.00	3263-6800-220	IC,2764 S-1403 PULSE V2.2
C11001	37.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11002	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11003	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11004	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11005	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11006	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11007	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11008	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11009	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11010	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11011	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11012	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11013	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11014	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11015	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11016	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11017	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11018	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11019	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11020	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11021	3.00	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
C11022	-.--	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
C11023	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11024	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11025	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11026	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11027	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11028	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11029	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11030	2.00	1605-3360-475	CAP,UF 33, 16V,TANT,RDL
C11031	-.--	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
C11032	4.00	1506-0102-017	CAP,PF 1000, 100V,NPO, 5
C11033	-.--	1605-3360-475	CAP,UF 33, 16V,TANT,RDL
C11034	1.00	1506-0331-017	CAP,PF 330, 100V,NPO, 5
C11035	1.00	1506-0560-017	CAP,PF 56, 100V,NPO, 5

ASSY NO. 7010-6830-300 REVISION B8 DESCRIPTION PCB ASSY, PULSE BD MODE-S

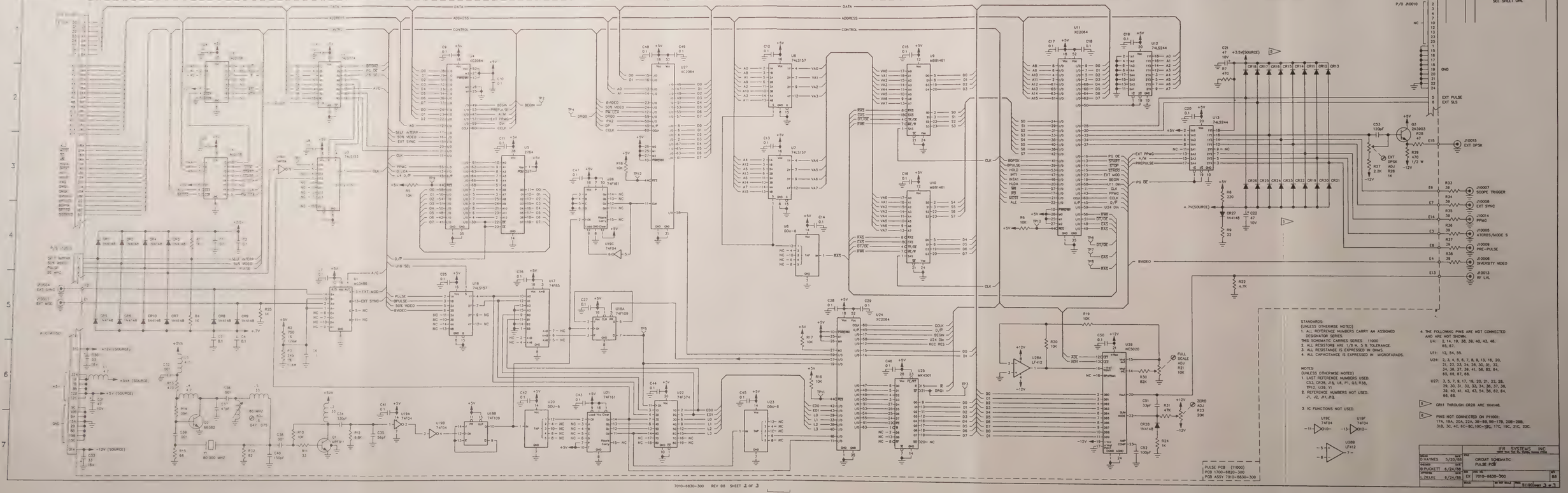
REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
C11036	-.--	1506-0102-017	CAP,PF 1000, 100V,NPO, 5
C11037	1.00	1506-0470-017	CAP,PF 47, 100V,NPO 5
C11038	-.--	1506-0102-017	CAP,PF 1000, 100V,NPO, 5
C11039	-.--	1506-0102-017	CAP,PF 1000, 100V,NPO, 5
C11040	1.00	1506-0151-017	CAP,PF 150, 100V,NPO, 5
C11041	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11042	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11043	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11044	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11045	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11046	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11047	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11048	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11049	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11050	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C11051	1.00	1506-0330-017	CAP,PF 33, 100V,NPO 5
C11052	1.00	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
C11053	1.00	1506-0121-017	CAP,PF 120, 100V,NPO 5
CR11001	28.00	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11002	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11003	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11004	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11005	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11006	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11007	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11008	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11009	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11010	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11011	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11012	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11013	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11014	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11015	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11016	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11017	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11018	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11019	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11020	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11021	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11022	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11023	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11024	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11025	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11026	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11027	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR11028	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
J10001	4.00	0002-0000-000	*** REF DESIG NOT USED ***
J10002	-.--	0002-0000-000	*** REF DESIG NOT USED ***
J10003	7.00	2113-0000-020	CONN UG1094/U
J10004	-.--	2113-0000-020	CONN UG1094/U
J10005	-.--	2113-0000-020	CONN UG1094/U
J10006	-.--	2113-0000-020	CONN UG1094/U
J10007	-.--	2113-0000-020	CONN UG1094/U

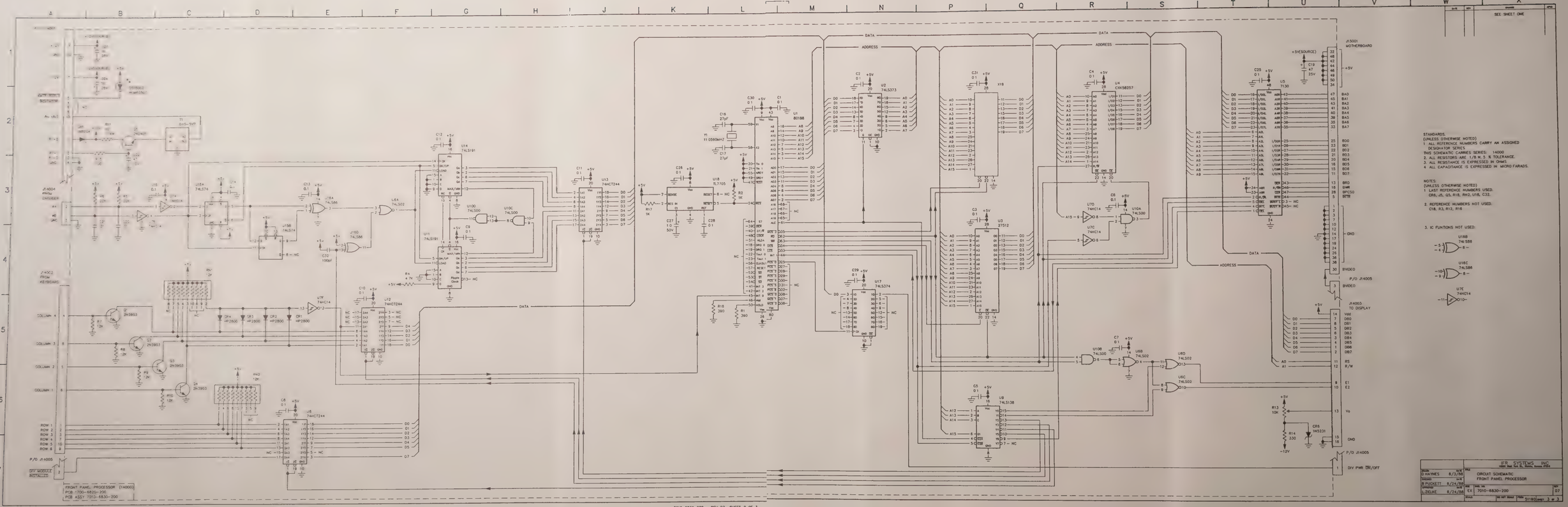
ASSY NO.	REVISION	DESCRIPTION
7010-6830-300	B8	PCB ASSY, PULSE BD MODE-S

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
J10008	-.--	2113-0000-020	CONN UG1094/U
J10009	-.--	2113-0000-020	CONN UG1094/U
J10010	1.00	2116-0001-000	CONN,D-SUB,F,25-P,PCM,R.A
J10011	-.--	0002-0000-000	*** REF DESIG NOT USED ***
J10013	3.00	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
J10014	-.--	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
J10015	-.--	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
J11012	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L11001	3.00	1801-0479-001	IND, 4.7 UH,1.2OHM,1025-36
L11002	2.00	1801-0338-001	IND, .33UH,.2 OHM,1025-08
L11003	-.--	1801-0479-001	IND, 4.7 UH,1.2OHM,1025-36
L11004	-.--	1801-0479-001	IND, 4.7 UH,1.2OHM,1025-36
L11005	-.--	1801-0338-001	IND, .33UH,.2 OHM,1025-08
L11006	1.00	1804-0000-009	IND,VAR, .047-.075UH,CRG 618
P11001	1.00	2129-1002-196	CONN,96P HEADER,SHORT LEADS
Q11001	1.00	4803-0000-004	TRANS,NPN,LP/VHF AMP
Q11002	1.00	4809-0000-005	TRANS,66382 ,NPN HF AMP
Q11003	1.00	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
R11001	4.00	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R11002	1.00	4706-7500-001	RES, 1, 1/4W, 750 OHM
R11003	1.00	4706-2490-001	RES, 1, 1/4W, 249 OHM
R11004	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R11005	8.00	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11006	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11007	2.00	4701-0471-003	RES, 5, 1/8W, 470 OHM
R11008	1.00	4701-0221-003	RES, 5, 1/8W, 220 OHM
R11009	1.00	4701-0220-003	RES, 5, 1/8W, 22 OHM
R11010	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11011	1.00	4701-0330-003	RES, 5, 1/8W, 33 OHM
R11012	1.00	4701-0682-003	RES, 5, 1/8W, 6.8K OHM
R11013	-.--	4701-0471-003	RES, 5, 1/8W, 470 OHM
R11014	1.00	4701-0393-003	RES, 5, 1/8W, 39K OHM
R11015	1.00	4701-0680-003	RES, 5, 1/8W, 68 OHM
R11016	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11017	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11018	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11019	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11020	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R11021	1.00	4753-0103-002	POT, 10K OHM, 62-2-1-103
R11022	1.00	4701-0472-003	RES, 5, 1/8W, 4.7K OHM
R11023	1.00	4753-0203-002	POT, 20K OHM, 62-2-1-203
R11024	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R11025	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R11026	1.00	4753-0102-002	POT, 1K OHM, 62-2-1-102
R11027	1.00	4701-0222-003	RES, 5, 1/8W, 2.2K OHM
R11028	1.00	4701-0470-003	RES, 5, 1/8W, 47 OHM
R11029	1.00	4703-0471-003	RES, 5, 1/2W, 470 OHM
R11030	1.00	4701-0823-003	RES, 5, 1/8W, 82K OHM
R11031	1.00	4701-0473-003	RES, 5, 1/8W, 47K OHM
R11032	1.00	4701-0820-003	RES, 5, 1/8W, 82 OHM
R11033	6.00	4702-0390-003	RES, 5, 1/4W, 39 OHM
R11034	-.--	4702-0390-003	RES, 5, 1/4W, 39 OHM
R11035	-.--	4702-0390-003	RES, 5, 1/4W, 39 OHM

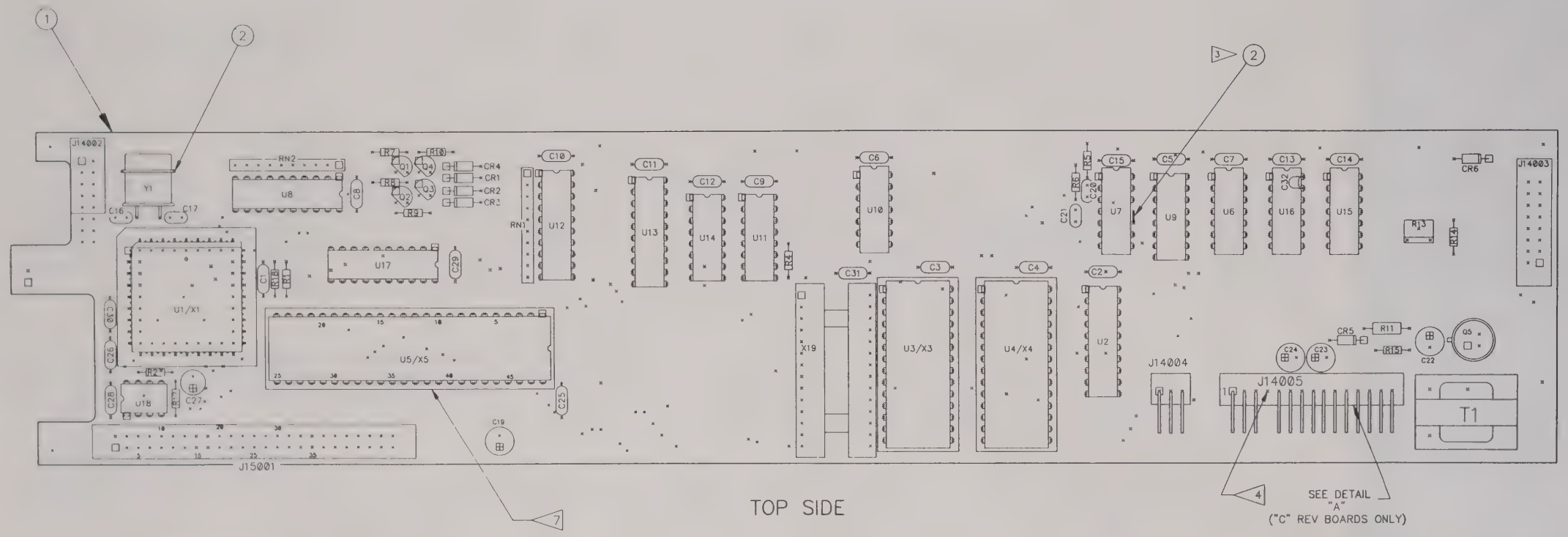
ASSY NO.	REVISION	DESCRIPTION
7010-6830-300	B8	PCB ASSY, PULSE BD MODE-S

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R11036	-.--	4702-0390-003	RES, 5, 1/4W, 39 OHM
R11037	-.--	4702-0390-003	RES, 5, 1/4W, 39 OHM
R11038	-.--	4702-0390-003	RES, 5, 1/4W, 39 OHM
TP11001	6.00	0003-0000-000	***** FOR REFERENCE ONLY *****
TP11002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP11003	6.00	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11004	-.--	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11005	-.--	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11006	-.--	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11007	-.--	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11008	-.--	2114-0000-007	POST,GANG,PCB,.025SQ,.443LG
TP11009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP11010	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP11011	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP11012	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
U11001	1.00	3134-0000-024	IC,3486,QUAD RS422/423 RCVR
U11002	1.00	3211-3374-000	IC,74LS374,OCTAL D FLIP-FLOP
U11003	1.00	3211-3153-000	IC,74LS153,DUAL 4-TO-1 MPLXR
U11004	4.00	3271-2064-070	IC,XC2064-70PC68C
U11006	3.00	3211-3157-000	IC,74LS157,QUAD 2-TO-1 MPLXR
U11007	-.--	3211-3157-000	IC,74LS157,QUAD 2-TO-1 MPLXR
U11008	3.00	3226-0005-000	IC,DIG DELAY UNIT,50 NS TOT
U11009	2.00	3260-0000-001	IC,D-RAM,N-MES 64K, 120NS
U11010	-.--	3260-0000-001	IC,D-RAM,N-MES 64K, 120NS
U11011	-.--	3271-2064-070	IC,XC2064-70PC68C
U11012	2.00	3211-3244-000	IC,74LS244,OCTAL BUF/DRVR/RCVR
U11013	-.--	3211-3244-000	IC,74LS244,OCTAL BUF/DRVR/RCVR
U11014	2.00	3131-0000-045	IC,74LS138,3-TO-8 DCDR/MPLXR
U11015	-.--	3131-0000-045	IC,74LS138,3-TO-8 DCDR/MPLXR
U11016	-.--	3211-3157-000	IC,74LS157,QUAD 2-TO-1 MPLXR
U11017	1.00	3215-0000-002	IC,74F85,FAST 4-B MAG COMPARE
U11018	1.00	3215-0000-003	IC,74F109,FAST D J-K FLIP FLOP
U11019	1.00	3215-0000-001	IC,74F04,FAST HEX INVERTER
U11020	-.--	3226-0005-000	IC,DIG DELAY UNIT,50 NS TOT
U11021	2.00	3215-0000-004	IC,74F161,FAST 4-BIT COUNTER
U11022	1.00	3215-0000-005	IC,74F374,FAST LATCH/FLIP FLOP
U11023	-.--	3226-0005-000	IC,DIG DELAY UNIT,50 NS TOT
U11024	-.--	3271-2064-070	IC,XC2064-70PC68C
U11025	1.00	3214-4501-015	IC,4501-15,PARA IN/OUT FIFO
U11026	-.--	3215-0000-004	IC,74F161,FAST 4-BIT COUNTER
U11027	-.--	3271-2064-070	IC,XC2064-70PC68C
U11028	1.00	3135-0000-054	IC,412,DUAL J-FET OP AMP
U11029	1.00	3228-0006-000	IC,5020,10-B D/A CONVERTER
X11004	4.00	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
X11005	1.00	3101-0000-021	SOCKET ICN-286-S4G
X11011	-.--	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
X11024	-.--	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
X11027	-.--	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
Y11001	1.00	2363-0117-000	XTAL, 80.000000MHZ,5 S,HC-18/U

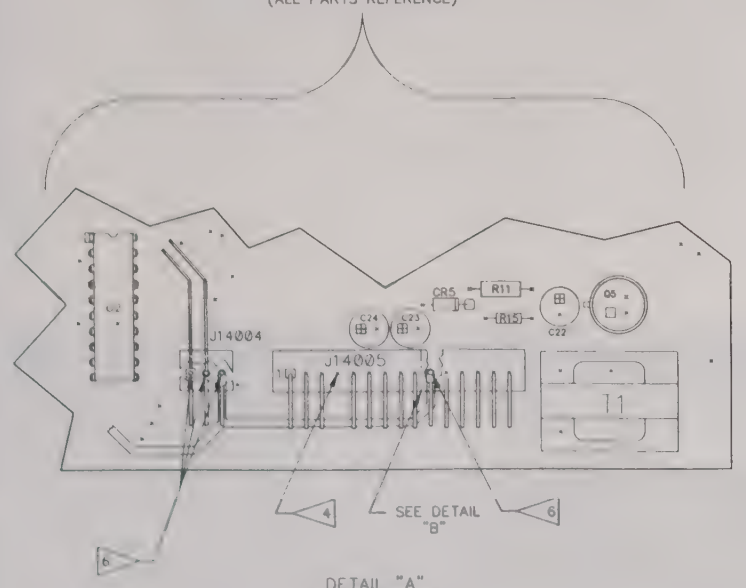

DATA
ADDRESS
CONTROL
SEE SHEET ONE
P/O J10010
PULSE PCB (11000)
PCB 1700-6820-300
PCB ASSY 700-6830-300
STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES : 11000
2. ALL RESISTORS ARE 1/8 W, 5 % TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.
4. ALL CAPACITANCE IS EXPRESSED IN MICROFARADS.
NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED.
C53, CR28, J13, L8, P1, Q3, R38,
TP12, U28, Y1
2. REFERENCE NUMBERS NOT USED.
J1, J2, J11, J13.
3. IC FUNCTIONS NOT USED.
4. THE FOLLOWING PINS ARE NOT CONNECTED AND ARE NOT SHOWN.
U4: 2, 14, 19, 38, 39, 40, 43, 46, 85, 87.
U11: 13, 34, 55.
U24: 2, 3, 4, 5, 6, 7, 8, 9, 13, 16, 20, 21, 22, 23, 24, 28, 30, 31, 32, 34, 36, 37, 38, 41, 54, 82, 84, 85, 86, 87, 88.
U27: 3, 5, 7, 8, 17, 18, 19, 20, 21, 22, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 54, 56, 82, 84, 86, 88.
CR11 THROUGH CR28 ARE 1N4148.
PINS NOT CONNECTED ON P10001:
17A, 19A, 20A, 22A, 38-88, 98-17B, 20B-29B, 31B, 3C, 4C, 8C-BC, 10C-19C, 17C, 19C, 21C, 22C.
IFR SYSTEMS INC.
CIRCUIT SCHEMATIC
PULSE PCB
D HAYNES 5/20/88
R PUCKETT 8/24/88
J. ZICLKE 8/24/88
700-6830-300
88
51190 sheet 3 of 3
7010-6830-300 REV 88 SHEET 2 OF 3


SEE SHEET ONE
DATA
ADDRESS
FRONT PANEL PROCESSOR (14000)
PCB 1700-6820-200
PCB ASSY 7015-6830-200
7010-6830-200 REV D7 SHEET 2 OF 3
IFR SYSTEMS INC.
CIRCUIT SCHEMATIC
FRONT PANEL PROCESSOR
7010-6830-200
D7
SHEET 2 OF 3

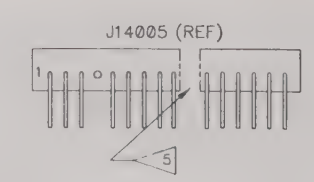
DATE	REV	CHANGE	APVD
3/9/88	C	DESIGN RELEASE, REF № 632	CJKM
4/19/88	D	INC. REF. № 658	CJKM
4/27/88	D-1	INC. REF. № 670	CJKM
5/3/88	D-2	INC. REF. № 676	CJKM
5/4/88	D-3	INC. REF. № 679	CJKM
6/17/88	D-4	INC REF. № 708	CJKM
7/5/88	D-5	INC REF. № 711	CJKM
7/28/88	D-5	PROD REL PER ECN 11475 JR	SLR
3/17/89	D-6	INC ECN #12188 WB	CP
4/25/89	D-7	INC ECN #12292 SCP	



TOP SIDE



DETAIL "A"
("C" REV BOARDS ONLY)



DETAIL "B"
(REV "C" BOARDS ONLY)

NOTES:

1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES. THIS DRAWING CARRIES SERIES 14000 (i.e., R1 IS R14001).
2. PADS AND FEED THRU'S ARE REPRESENTED BY "X"; "□" INDICATES PIN 1 OR POLARITY.
3. PINS 10 AND 11 OF U7 ARE TO BE CUT OFF BEFORE INSTALLATION. PUT 26 GA BUS WIRE (ITEM 2) IN HOLES FROM TOP SIDE BEFORE INSTALLING U7.
4. REMOVE PIN 4 FOR KEYING.
5. FOR "C" REVISION BD'S ONLY– CUT CONNECTOR J14005 BETWEEN PINS 9 AND 10 COUNTING FROM THE LEFT AND REMOVE A SMALL AMOUNT OF MATERIAL TO ALLOW ALL PINS TO PLUG INTO BD AS SHOWN.
6. AFTER INSTALLING J5 AND J4, LIFT PLASTIC ON CONNECTORS TO BE SURE TOP SOLDER IS VISIBLE WHERE TRACES ARE INDICATED. – ***FOR REV. "C" BDS ONLY***
7. LEADS ON X5 MUST BE CLIPPED AFTER SOLDERING (BOTTOM SIDE).
8. THIS PCB ASS'Y INCLUDES STATIC SENSITIVE DEVICES AND SHOULD BE HANDLED IN A STATIC CONTROLLED ENVIRONMENT AT ALL TIMES.

DRAWN SIGLER 3/9/88		IFR SYSTEMS INC
CHECKED ROCK CRAWFORD 4/4/88	TITLE	PCB ASS'Y PCB ASS'Y, FRONT PANEL PROCESSOR
APPROVED P.R. HARRIS 4/5/88	SIZE D	DWG. NO. 7010-6830-200 REV D-7
	SCALE 2:1	DO NOT SCALE FSCM 51190 SHEET 1 OF 3

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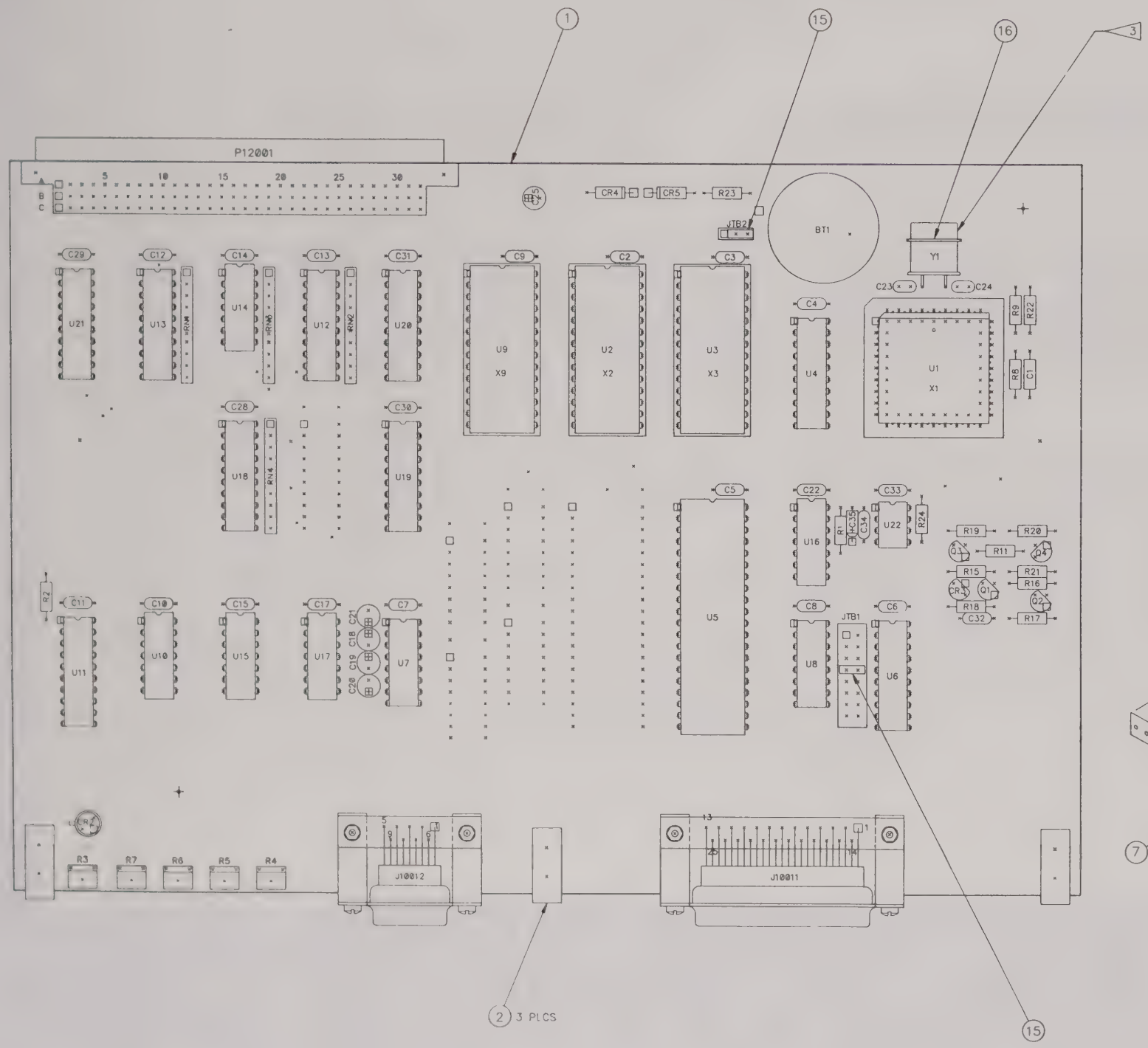
ASSY NO.	REVISION	DESCRIPTION
7010-6830-200	D7	PCB ASSY,FRONT PANEL PROCESSOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-200	PC BD,FRONT PANEL PROCESSSOR
*02	.00	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
*U14003	1.00	3271-6803-110	IC,27512 FT PNL PROCESSOR V1.1
C14001	21.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14002	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14003	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14004	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14005	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14006	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14007	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14008	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14009	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14010	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14011	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14012	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14013	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14014	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14015	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14016	2.00	1506-0270-017	CAP,PF 27, 100V,NPO, 5
C14017	-.--	1506-0270-017	CAP,PF 27, 100V,NPO, 5
C14018	4.00	0002-0000-000	*** REF DESIG NOT USED ***
C14019	1.00	1580-4700-220	CAP,UF 47, 25V,ELE,RAD
C14020	2.00	1506-0103-017	CAP,UF .010, 100V,CK05BX
C14021	-.--	1506-0103-017	CAP,UF .010, 100V,CK05BX
C14022	1.00	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
C14023	2.00	1580-1000-200	CAP,UF, 10, 25V,ELE RDL
C14024	-.--	1580-1000-200	CAP,UF, 10, 25V,ELE RDL
C14025	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14026	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14027	1.00	1580-1092-450	CAP,UF 1.0, 50V,ELE,RDL
C14028	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14029	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14030	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14031	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C14032	1.00	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
CR14001	4.00	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR14002	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR14003	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR14004	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR14005	1.00	4818-0000-004	DIODE, 1N5234B ,ZENER,6.2V,.5W
CR14006	1.00	4818-0000-003	DIODE, 1N5231B ,ZENER,5.1V,.5W
J14002	1.00	2129-1001-010	CONN,HEADER,10-P STR 609-1027
J14003	1.00	2129-1001-016	CONN,ANSLEY 609-1627
J14004	1.00	2115-1002-003	CONN,MOLEX 22-05-2031 3PIN RA
J14005	1.00	2115-1002-115	CONN,MOLEX 22-12-2151,GOLD PLT
J15001	1.00	2129-1050-050	CONN,HEADER,STR,50-P,3433-2202
Q14001	4.00	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q14002	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q14003	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q14004	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q14005	1.00	4801-0000-002	TRANS, 2N2405 ,NPN AMP
R14001	2.00	4701-0391-003	RES, 5, 1/8W, 390 OHM
R14002	2.00	4701-0102-003	RES, 5, 1/8W, 1.0K OHM

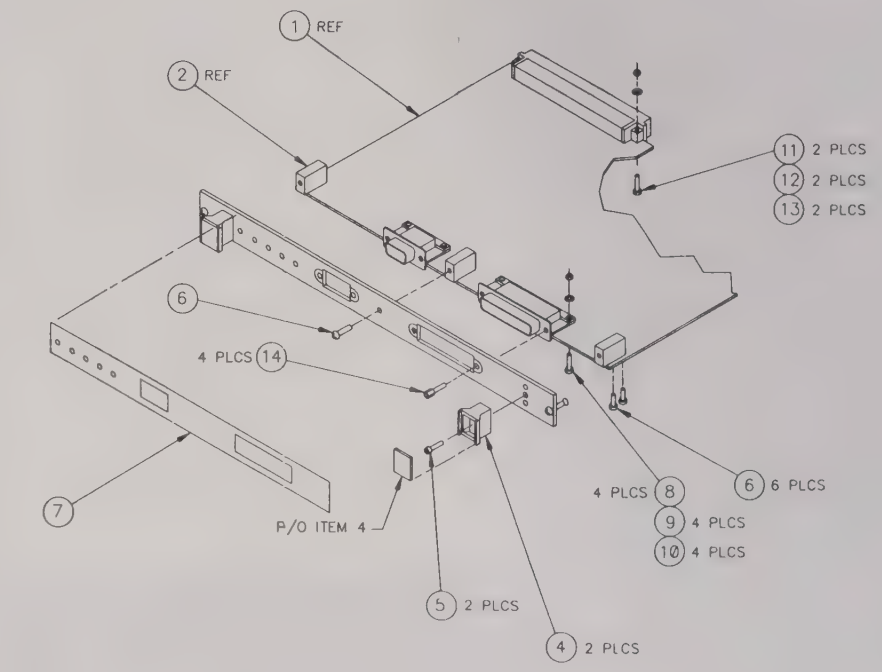
ASSY NO.	REVISION	DESCRIPTION
7010-6830-200	D7	PCB ASSY,FRONT PANEL PROCESSOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R14003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R14004	1.00	4701-0472-003	RES, 5, 1/8W, 4.7K OHM
R14005	2.00	4701-0223-003	RES, 5, 1/8W, 22K OHM
R14006	-.--	4701-0223-003	RES, 5, 1/8W, 22K OHM
R14007	4.00	4701-0123-003	RES, 5, 1/8W, 12K OHM
R14008	-.--	4701-0123-003	RES, 5, 1/8W, 12K OHM
R14009	-.--	4701-0123-003	RES, 5, 1/8W, 12K OHM
R14010	-.--	4701-0123-003	RES, 5, 1/8W, 12K OHM
R14011	1.00	4702-0100-003	RES, 5, 1/4W, 10 OHM
R14012	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R14013	1.00	4753-0103-002	POT, 10K OHM, 62-2-1-103
R14014	1.00	4701-0331-003	RES, 5, 1/8W, 330 OHM
R14015	1.00	4701-0101-003	RES, 5, 1/8W, 100 OHM
R14016	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R14017	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R14018	-.--	4701-0391-003	RES, 5, 1/8W, 390 OHM
RN14001	2.00	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
RN14002	-.--	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
T14001	1.00	4600-6800-401	INVERTER SUPPLY PURCHASED
U14001	1.00	3135-0000-068	IC,80188,8/16-B CPU,PLCC
U14002	1.00	3211-3373-000	IC,74LS373,8X 3ST XPARENT LTCH
U14004	1.00	3260-0100-700	IC,CMOS,RAM 32X8 5857 (256)
U14005	1.00	3271-0005-000	IC, 7130, 1KX8 DUAL PORT RAM
U14006	1.00	3131-0000-032	IC,74LS02,QUAD 2-INPUT NOR
U14007	1.00	3214-9014-000	IC,74HC14,HEX INV SCHMITT TRIG
U14008	3.00	3214-8244-000	IC,74HCT244,OCTAL BUF/DRVR/RCV
U14009	1.00	3131-0000-045	IC,74LS138,3-TO-8 DCDR/MPLXR
U14010	1.00	3131-0000-044	IC,74LS00,QUAD 2-INPUT NAND
U14011	2.00	3131-0000-030	IC,74LS191,BIN SYN U/D COUNTER
U14012	-.--	3214-8244-000	IC,74HCT244,OCTAL BUF/DRVR/RCV
U14013	-.--	3214-8244-000	IC,74HCT244,OCTAL BUF/DRVR/RCV
U14014	-.--	3131-0000-030	IC,74LS191,BIN SYN U/D COUNTER
U14015	1.00	3131-0000-038	IC,74LS74A,DUAL D FLIP-FLOP
U14016	1.00	3211-3086-000	IC,74LS86,QUAD 2-INPUT EXCL-OR
U14017	1.00	3211-3374-000	IC,74LS374,OCTAL D FLIP-FLOP
U14018	1.00	3135-0000-069	IC,7705,+5V SPLY VOLTAGE SUPV
X14001	1.00	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
X14003	3.00	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
X14004	-.--	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
X14005	1.00	3101-0500-920	SOCKET,48-P DIP,ICN-486-$5-G
X14019	-.--	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
Y14001	1.00	2363-0097-000	XTAL, 11.059000MHZ,F P HC-18/U

DATE	REV	CHANGE	APVD
3/16/88	A	DESIGN RELEASE	CJKM
3/17/88	A-1	REF #627	CJKM
3/21/88	A-2	REF #634	CJKM
7/29/88	A-2	PROD REL PER ECN 11475 JR	SLR
12/9/88	A-3	INC RC 11928 PL	DC
3/28/89	A-4	INC ECN 12188 WB	
4/25/89	A-5	INC ECN 12292 SCP	



NOTES:
1. THIS PC BD ASSY CARRIES A REF DES SERIES OF 12000(i.e.,R1 IS R12001).
2. REF SCHEMATIC: SEE SHEET #2.
3. CRYSTAL CASE MUST NOT BE HEATED. DO NOT ALLOW SOLDER TO FLOW OR COME IN CONTACT WITH CRYSTAL
4. THIS PC BD MUST BE ASSEMBLED AT AN APPROVED STATIC STATION.
5. PADS AND FEED THRU'S ARE REPRESENTED BY "X". "□" INDICATES PIN 1 OR POLARITY.



DRAWN R BURNETT 3/16/88	IFR SYSTEMS INC	
CHECKED R CRAWFORD 4/5/88	TITLE PCB ASS'Y PROCESSOR	
APPROVED PR HARRIS 4/5/88	SIZE D	DWG. NO. 7010-6831-000 REV A5
	SCALE 2:1	DO NOT SCALE FSCM 51190 SHEET 1 OF 3

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ASSY NO.	REVISION	DESCRIPTION
7010-6831-000	A5	PCB ASSY, PROCESSOR S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	1.00	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
	-.--	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
*01	1.00	1700-6821-000	PC BD, PROCESSOR S-1403
*02	3.00	2100-6751-600	BLOCK,PC BD MTG
*03	1.00	1414-6750-700	COVER,PROCESSOR PC BD ASSY
*04	2.00	1407-0000-003	HANDLE,FT PNL,GREY PLASTIC
*05	2.00	2803-0250-002	SCREW,4-40 X 1/4 SHC
*06	7.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*07	1.00	2400-6851-800	LABEL, PROCESSOR
*08	4.00	2803-0313-006	SCREW,4-40 X 5/16 PPHM
*09	4.00	2840-0000-003	WASHER,LOCK,INT TOOTH,4
*10	4.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*11	2.00	2801-0438-006	SCREW,2-56 X 7/16 PPHM
*12	2.00	2840-0000-004	WASHER,LOCK,INT TOOTH,2
*13	2.00	2850-0000-012	NUT,HEX,SMALL PAT,2-56
*14	4.00	2850-7601-301	SCREW,.188L4-40.19HH,4-40X.300
*15	2.00	2132-0004-000	CONN,JUMPER BLOCK,.1C,.025 PIN
*16	.00	1050-0000-074	WIRE,BUS,TINNED COPPER,24GA
*U12002	1.00	3271-6801-110	IC,27512 MODE-S #1 V1.1
*U12009	1.00	3271-6802-110	IC,27512 MODE-S #2 V1.1
BT12001	1.00	4000-9232-501	BATT,160MAH,BR2325P2 SLDRTB+3V
C12001	1.00	1627-2240-450	CAP,UF .22, 50V,CAC04Z5U
C12002	23.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12003	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12004	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12005	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12006	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12007	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12008	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12009	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12010	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12011	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12012	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12013	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12014	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12015	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12016	8.00	0002-0000-000	*** REF DESIG NOT USED ***
C12017	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12018	4.00	1580-4792-305	CAPACITOR 4.7 uF,35V *
C12019	-.--	1580-4792-305	CAPACITOR 4.7 uF,35V *
C12020	-.--	1580-4792-305	CAPACITOR 4.7 uF,35V *
C12021	-.--	1580-4792-305	CAPACITOR 4.7 uF,35V *
C12022	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12023	2.00	1506-0270-017	CAP,PF 27, 100V,NPO, 5
C12024	-.--	1506-0270-017	CAP,PF 27, 100V,NPO, 5
C12025	1.00	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
C12026	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C12027	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C12028	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12029	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12030	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12031	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12032	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *

ASSY NO.	REVISION	DESCRIPTION
7010-6831-000	A5	PCB ASSY, PROCESSOR S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
C12033	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12034	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C12035	1.00	1507-0105-018	CAP,UF 1.0, 35V,TANT, 20
CR12001	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR12002	1.00	3223-0006-000	IC,LM335,PRECISION TEMP SENSOR
CR12003	1.00	3225-0001-000	IC,336,+2.5V/-2.5V REFERENCE
CR12004	2.00	4920-5151-300	DIODE,11DQ03 15,RECT,PS,30V,1A
CR12005	-.--	4920-5151-300	DIODE,11DQ03 15,RECT,PS,30V,1A
J10011	1.00	2116-0001-000	CONN,D-SUB,F,25-P,PCM,R.A
J10012	1.00	2205-3310-104	CONN,D-SUB,F,9PIN PCM RA
JTB12001	1.00	2129-1087-016	CONN,AMP 87227-8
JTB12002	1.00	2115-1001-003	CONN,MOLEX 22-03-2031
P12001	1.00	2129-1002-196	CONN,96P HEADER,SHORT LEADS
Q12001	3.00	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
Q12002	-.--	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
Q12003	1.00	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q12004	-.--	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
R12001	2.00	4702-0472-003	RES, 5, 1/4W, 4.7K OHM
R12002	1.00	4702-0123-003	RES, 5, 1/4W, 12K OHM
R12003	5.00	4753-0103-002	POT, 10K OHM, 62-2-1-103
R12004	-.--	4753-0103-002	POT, 10K OHM, 62-2-1-103
R12005	-.--	4753-0103-002	POT, 10K OHM, 62-2-1-103
R12006	-.--	4753-0103-002	POT, 10K OHM, 62-2-1-103
R12007	-.--	4753-0103-002	POT, 10K OHM, 62-2-1-103
R12008	1.00	4702-0391-003	RES, 5, 1/4W, 390 OHM
R12009	-.--	4702-0472-003	RES, 5, 1/4W, 4.7K OHM
R12010	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R12011	4.00	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R12012	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R12013	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R12014	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R12015	1.00	4702-0271-003	RES, 5, 1/4W, 270 OHM
R12016	1.00	4706-7680-001	RES, 1, 1/4W, 768 OHM
R12017	1.00	4706-8060-001	RES, 1, 1/4W, 806 OHM
R12018	1.00	4702-0821-003	RES, 5, 1/4W, 820 OHM
R12019	1.00	4702-0331-003	RES, 5, 1/4W, 330 OHM
R12020	2.00	4702-0332-003	RES, 5, 1/4W, 3.3K OHM
R12021	-.--	4702-0332-003	RES, 5, 1/4W, 3.3K OHM
R12022	-.--	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R12023	-.--	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R12024	-.--	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
RN12001	4.00	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
RN12002	-.--	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
RN12003	-.--	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
RN12004	-.--	4690-0912-300	RES NET,SIP,BUSS, 12K OHM,10-P
U12001	1.00	3135-0000-068	IC,80188,8/16-B CPU,PLCC
U12003	1.00	3260-0100-700	IC,CMOS,RAM 32X8 5857 (256)
U12004	2.00	3211-3373-000	IC,74LS373,8X 3ST XPARENT LTCH
U12005	1.00	3135-0000-067	IC,8256,MUART
U12006	3.00	3214-8245-000	IC,74HCT245,OCTAL BUS XCVR
U12007	1.00	3223-0005-000	IC,MAX232EPC,5V 2X RS-232 XCVR
U12008	1.00	3131-0000-045	IC,74LS138,3-TO-8 DCDR/MPLXR
U12010	1.00	3131-0000-038	IC,74LS74A,DUAL D FLIP-FLOP

ASSY NO.	REVISION	DESCRIPTION
7010-6831-000	A5	PCB ASSY, PROCESSOR S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
U12011	1.00	3228-0008-000	IC,540/145040,A-D PERIPHERAL
U12012	-.--	3211-3373-000	IC,74LS373,8X 3ST XPARENT LTCH
U12013	-.--	3214-8245-000	IC,74HCT245,OCTAL BUS XCVR
U12014	2.00	3131-0000-007	IC,74LS125A,QUAD BUS BUFFER
U12015	1.00	3131-0000-033	IC,74LS04,HEX INVERTER
U12016	-.--	3131-0000-007	IC,74LS125A,QUAD BUS BUFFER
U12017	1.00	3131-0000-032	IC,74LS02,QUAD 2-INPUT NOR
U12018	3.00	3211-3244-000	IC,74LS244,OCTAL BUF/DRVR/RCVR
U12019	-.--	3211-3244-000	IC,74LS244,OCTAL BUF/DRVR/RCVR
U12020	-.--	3211-3244-000	IC,74LS244,OCTAL BUF/DRVR/RCVR
U12021	-.--	3214-8245-000	IC,74HCT245,OCTAL BUS XCVR
U12022	1.00	3135-0000-069	IC,7705,+5V SPLY VOLTAGE SUPV
X12001	-.--	3101-0000-031	SOCKET,68-P LCC JEDEC H/P TIN
X12002	3.00	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
X12003	-.--	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
X12009	-.--	3101-0000-029	SOCKET,28-P DIP,GOLD,LO PROFIL
Y12001	1.00	2363-0113-000	XTAL, 16.384000MHZ,F P,HC-18/U

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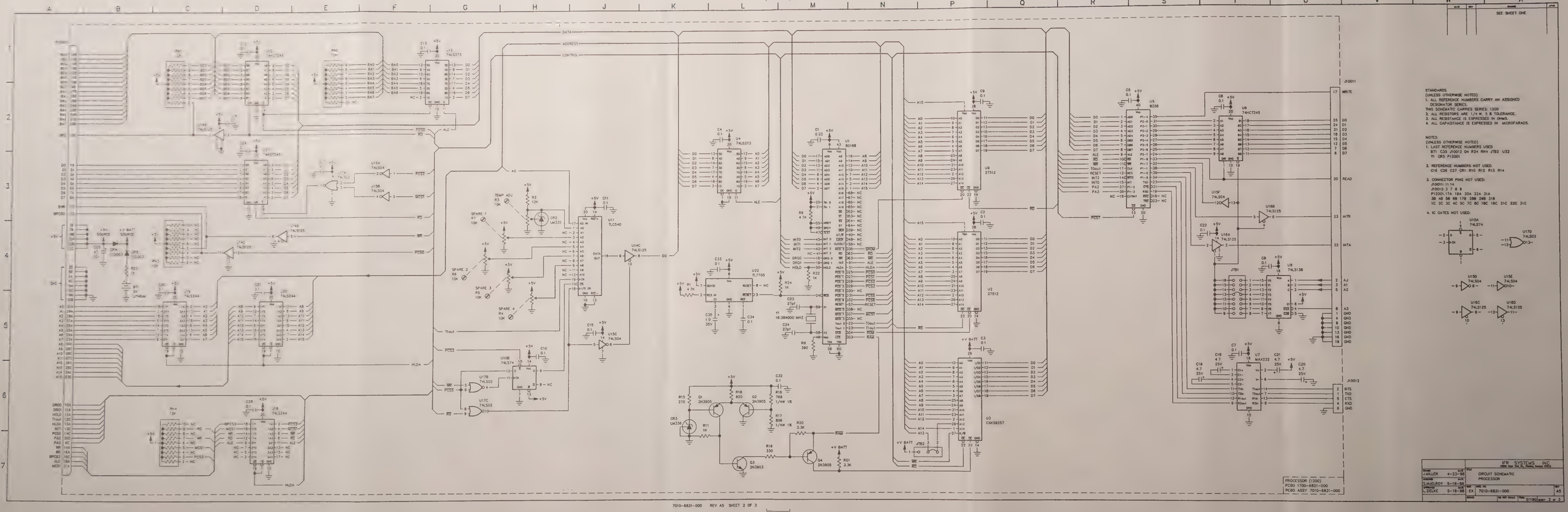
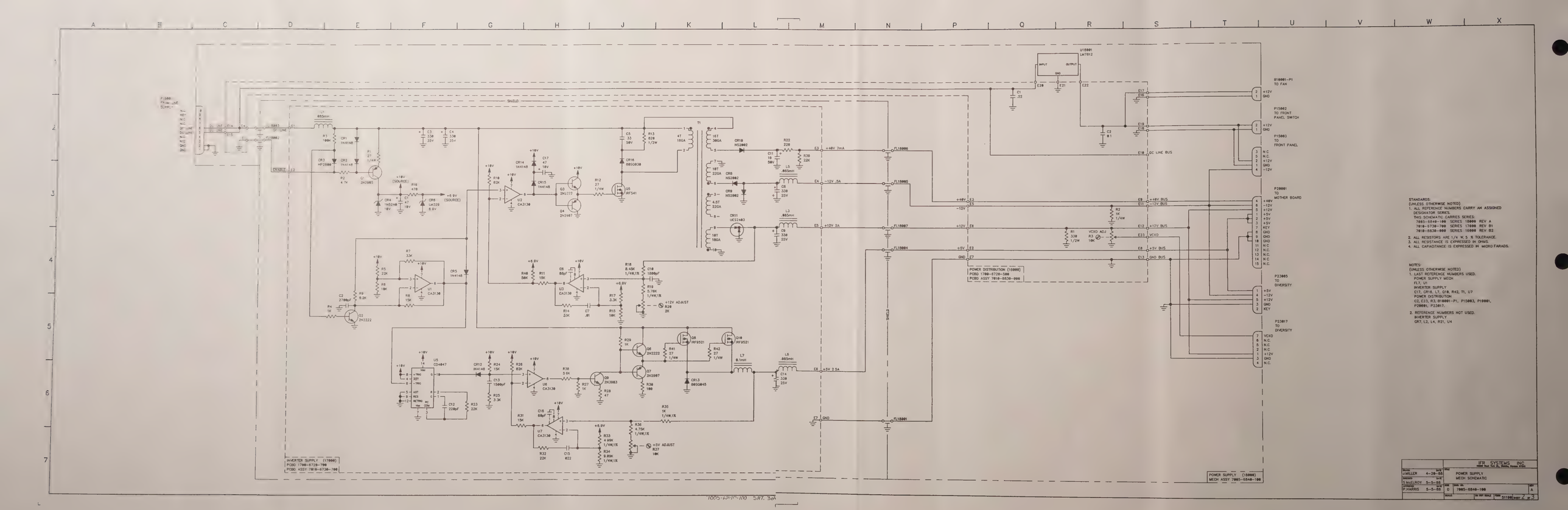
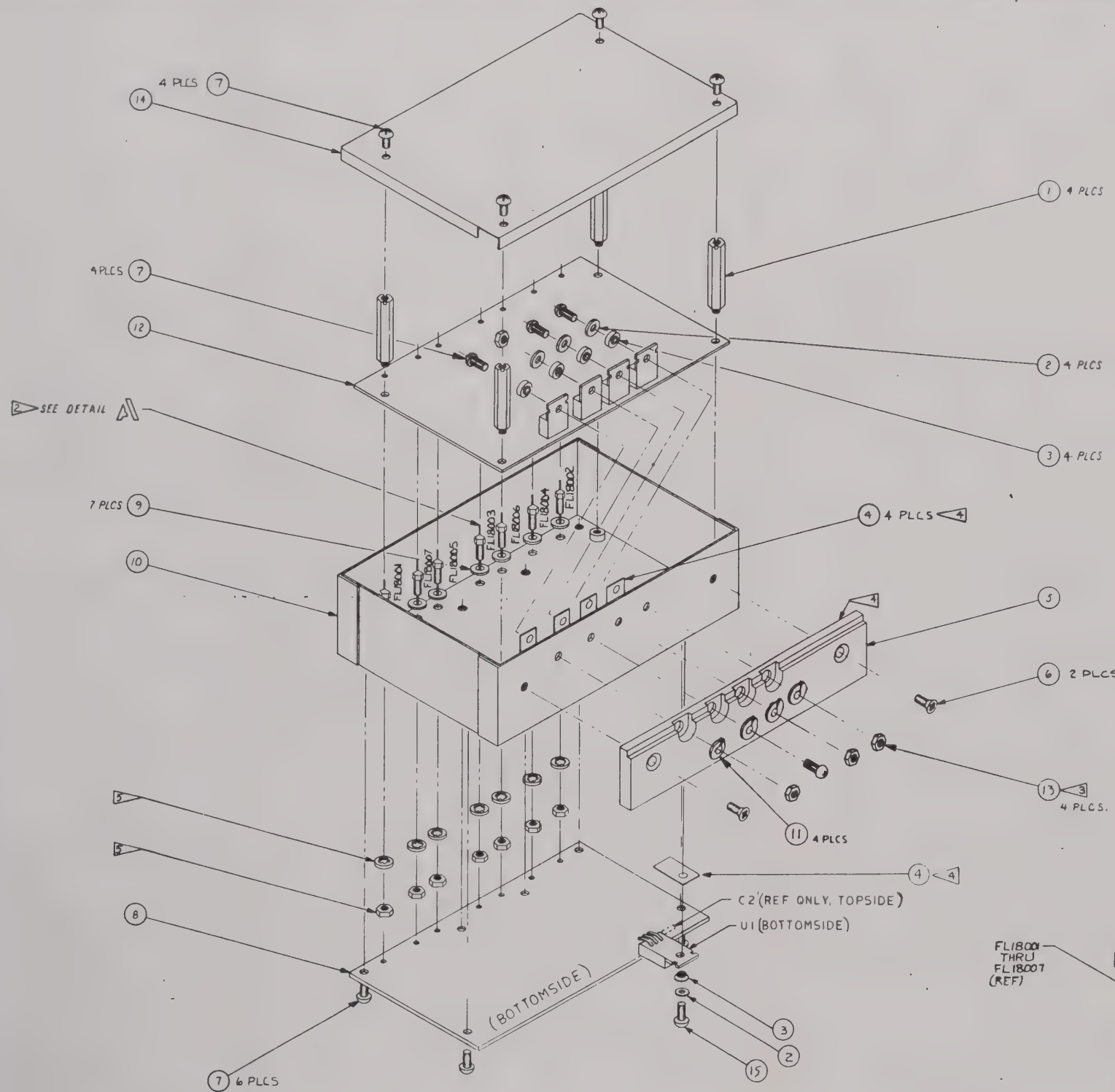
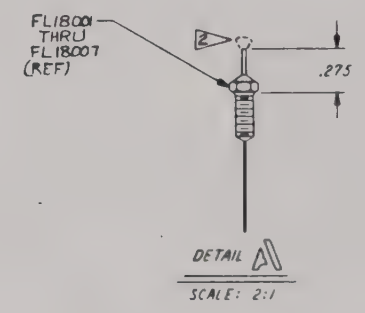

DATA
ADDRESS
CONTROL
SEE SHEET ONE
STANDARDS
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 1200
2. ALL RESISTORS ARE 1/4 W, 5 % TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.
4. ALL CAPACITANCE IS EXPRESSED IN MICROFARADS.
NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED
BTI C33 J10012 Q4 R24 RN4 JTB2 U22
Y1 CR3 P13001
2. REFERENCE NUMBERS NOT USED:
C16 C26 C27 CR1 R10 R12 R13 R14
3. CONNECTOR PINS NOT USED:
J10011: 1 11
J10012: 3 7 8 9
P13001: 17A 18A 20A 22A 31A
3B 4B 5B 6B 17B 28B 29B 31B
1C 2C 3C 4C 5C 7C 8C 18C 19C 21C 22C 31C
4. IC GATES NOT USED:
U10A 74LS74
U17D 74LS02
U15D 74LS04
U15E 74LS04
U16C 74LS125
U16D 74LS125
J10011
J10012
PROCESSOR (1200)
PCB0 1700-6821-000
PCB0 ASSY 7010-6831-000
IFR SYSTEMS, INC.
CIRCUIT SCHEMATIC
PROCESSOR
A.MILLER 4-23-86
S.McELROY 5-18-86
L.DELAKE 5-18-86
7010-6831-000
A5
SHEET 2 of 3
7010-6831-000 REV A5 SHEET 2 OF 3


INVERTER SUPPLY (17000)
PCBD 1790-6720-700
PCBD ASSY 7810-6730-700
POWER SUPPLY (10000)
MECH ASSY 7005-6540-100
POWER DISTRIBUTION (10000)
PCBD 1700-6720-500
PCBD ASSY 7810-6530-000
SHIELD
U10001 LM7812
INPUT
OUTPUT
GND
T1
P10001-P1 TO FAN
P15002 TO FRONT PANEL SWITCH
P15003 TO FRONT PANEL
P20001 TO MOTHER BOARD
P23005 TO DIVERSITY
P23017 TO DIVERSITY
DC LINE BUS
+48V BUS
-12V BUS
+12V BUS
+5V BUS
GND BUS
VCXO ADJ
+12V ADJUST
+5V ADJUST
STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AM ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES:
7005-6540-100 SERIES 10000 REV A
7810-6730-700 SERIES 17000 REV B1
7810-6530-000 SERIES 10000 REV B2
2. ALL RESISTORS ARE 1/4 W, 5 % TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.
4. ALL CAPACITANCE IS EXPRESSED IN MICRO FARADS.
NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED.
POWER SUPPLY MECH
FL7, U1
INVERTER SUPPLY
C17, CR18, L7, Q18, R42, T1, U7
POWER DISTRIBUTION
C2, E23, R3, P10001-P1, P15003, P10001, P23005, P23017.
2. REFERENCE NUMBERS NOT USED.
INVERTER SUPPLY
CR7,L2, L4, R21, U4
IFR SYSTEMS INC
J.MILLER 4-28-88
S.McELROY 5-5-88
P.HARRIS 5-5-88
POWER SUPPLY
MECH. SCHEMATIC
7005-6540-100
D
A
SHEET 2 OF 3

DATE	REV.	CHANGE	APPD
3-29-88	A	DESIGN RELEASE, REF NO. 815 REPRODUCED, WAS 7005-6740-100 JS	DYM
7-29-88	A	PROD REL PER ECN 11475 JR	SLA





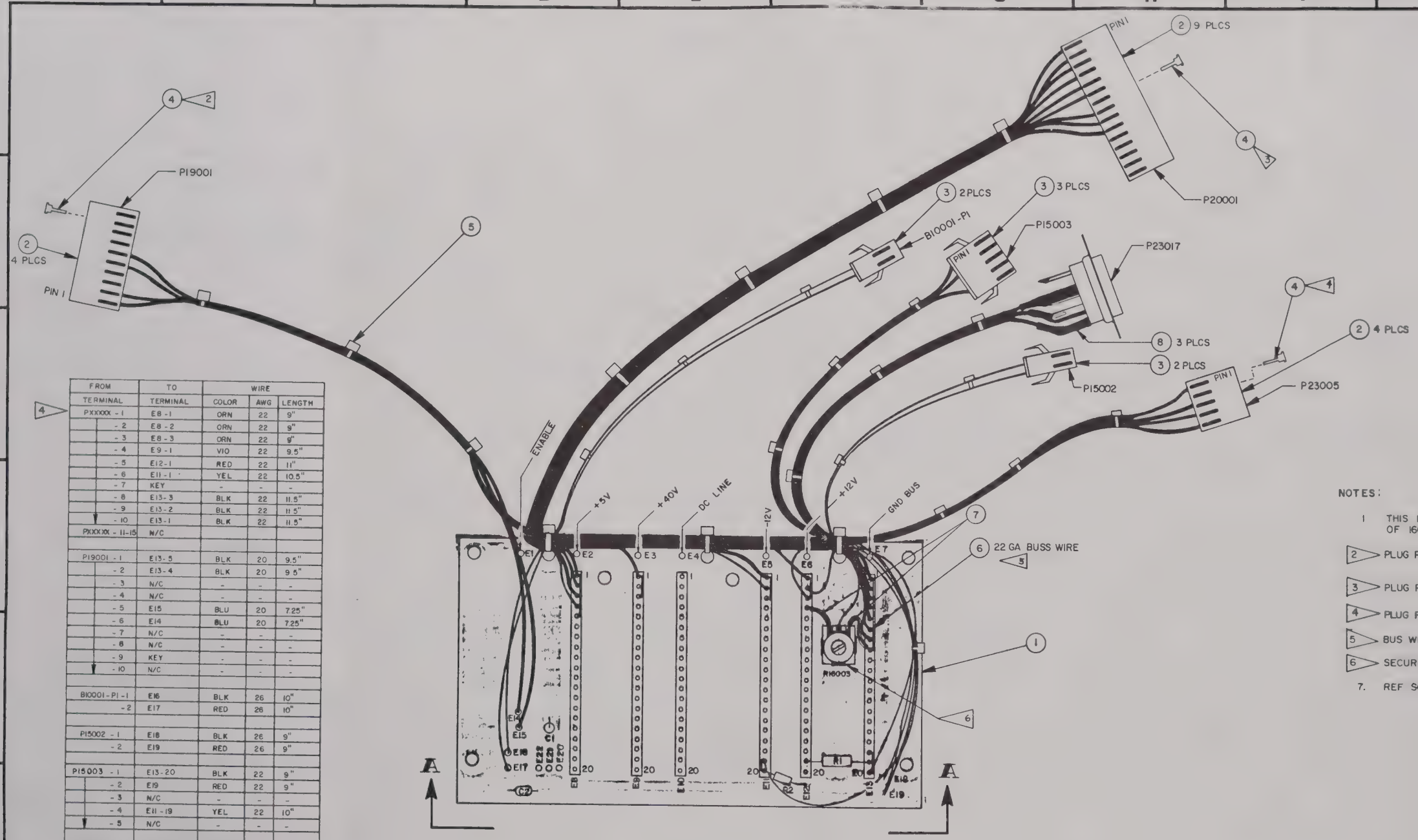
NOTES:
1. THIS ASSEMBLY CARRIES SERIES 18000 (e.g., AI IS A18001).
2. FLANGE OF FL18001-7 ARE TO BE REMOVED BEFORE INSTALLATION.
3. USE LOCKTITE 222 (DPN 1030-0000-047) ON CONNECTION AFTER NUT, ITEM 13, IS TIGHTENED.
4. APPLY SILICON GREASE TO BOTH SIDES OF MKA INSULATOR AND BETWEEN HEATSINK AND ENCLOSURE.
5. HARDWARE TO BE INCLUDED WITH FL18001-7 (DPN 5801-0000-006)

DRAWN DH 5/22/87	IFR SYSTEMS INC
CHECKED [illegible] 5-30-88	TITLE: MECH ASS'Y, POWER SUPPLY
APPROVED [illegible]	SIZE D; DWG NO. 7005-6840-100; REV A
SCALE	DO NOT SCALE; SHEET 3 OF 3

ASSY NO.	REVISION	DESCRIPTION
7005-6840-100	A	MECH ASSY, POWER SUPPLY

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	4.00	2800-5154-700	SPCR.25HEX,M-F,SLOT,1.06L*4-40
*02	5.00	2840-0000-009	WASHER,FLAT,4,MS15795-803
*03	5.00	2840-6153-500	WASHER PPS SHOULDER
*04	5.00	4835-0000-103	INSUL,MICA,TO-220 TRANS,DF103B
*05	1.00	5400-6150-100	HEATSINK, PWR SUPPLY
*06	2.00	2803-0313-003	SCREW 4-40 X 5/16 PFHMS
*07	14.00	2803-0313-006	SCREW,4-40 X 5/16 PPHM
*08	1.00	7010-6830-000	PCB ASSY POWER DISTRIBUTION
*09	7.00	2840-0000-046	WASHER,FLT.166ID*.406OD*.037TK
*10	1.00	1415-6150-200	ENCLOSURE PWR SUPPLY
*11	4.00	2840-0000-012	4 SPLIT LOCKWASHER
*12	1.00	7010-6730-700	PCB ASSY, INVERTER SUPPLY
*13	4.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*14	1.00	1414-6150-300	COVER, PWR SUPPLY
*15	1.00	2803-0188-006	SCREW,4-40 X 3/16 PPHM
FL18001	7.00	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18002	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18003	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18004	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18005	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18006	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL18007	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
U18001	1.00	3224-0078-120	IC,7812C,1.5A 12V REGULATOR

DR'D	REV	CHANGE	CHK'D
2/4/88	B	DESIGN REL. REF = 631	[illegible]
4/6/88	B-1	REF = 673	[illegible]
5/11/88	B-2	REF = 693	[illegible]
7-29-88	B-2	PROD REL PER E.C.N 11475 JR	[illegible]



FROM TERMINAL	TO TERMINAL	WIRE COLOR	AWG	LENGTH
PXXXXX - 1	E8 - 1	ORN	22	9"
- 2	E8 - 2	ORN	22	9"
- 3	E8 - 3	ORN	22	9"
- 4	E9 - 1	VIO	22	9.5"
- 5	E12 - 1	RED	22	11"
- 6	E11 - 1	YEL	22	10.5"
- 7	KEY	-	-	-
- 8	E13 - 3	BLK	22	11.5"
- 9	E13 - 2	BLK	22	11.5"
- 10	E13 - 1	BLK	22	11.5"
PXXXXX - 11-15	N/C			
P19001 - 1	E13 - 5	BLK	20	9.5"
- 2	E13 - 4	BLK	20	9.5"
- 3	N/C	-	-	-
- 4	N/C	-	-	-
- 5	E15	BLU	20	7.25"
- 6	E14	BLU	20	7.25"
- 7	N/C	-	-	-
- 8	N/C	-	-	-
- 9	KEY	-	-	-
- 10	N/C	-	-	-
B10001 - P1 - 1	E16	BLK	26	10"
- 2	E17	RED	26	10"
P15002 - 1	E18	BLK	26	9"
- 2	E19	RED	26	9"
P15003 - 1	E13 - 20	BLK	22	9"
- 2	E19	RED	22	9"
- 3	N/C	-	-	-
- 4	E11 - 19	YEL	22	10"
- 5	N/C	-	-	-
P23017 - 1	E12 - 2	RED	26	9"
- 2	N/C	-	-	-
- 3	E13 - 6	BLK	26	9"
- 4	N/C	-	-	-
- 5	CASE GND	-	-	-
- 6	N/C	-	-	-
- 7	VCXO	BLU/WHT	26	9"
P23005 - 1	E8 - 4	ORN	22	13.5"
- 2	KEY	-	-	-
- 3	E13 - 7	BLK	22	10"
- 4	E11 - 2	YEL	22	11.5"
- 5	E12 - 3	RED	22	11"
R16003 - 3	E12 - 4			
- 2	P23017 - 7	BLU/WHT	26	9"
- 1	E13 - 8			

R16003 - 2

VIEW A-A

NOTES:

1. THIS PC BD ASS'Y CARRIES A REF DES SERIES OF 16000 (i.e. R1 IS R16001)
2. PLUG PIN 9 FOR KEYING
3. PLUG PIN 7 FOR KEYING.
4. PLUG PIN 2 FOR KEYING.
5. BUS WIRE IS A STRAIGHT CONTINUOUS PIECE (7 PLCS).
6. SECURE (R16003) WITH TAK PAK, DPN 1051-0100-100.
7. REF SCHEM 7005-6840-100.

TOLERANCES (UNLESS OTHERWISE SPECIFIED)

IFR SYSTEMS INC

DRAWN BURNETT 3/9/88

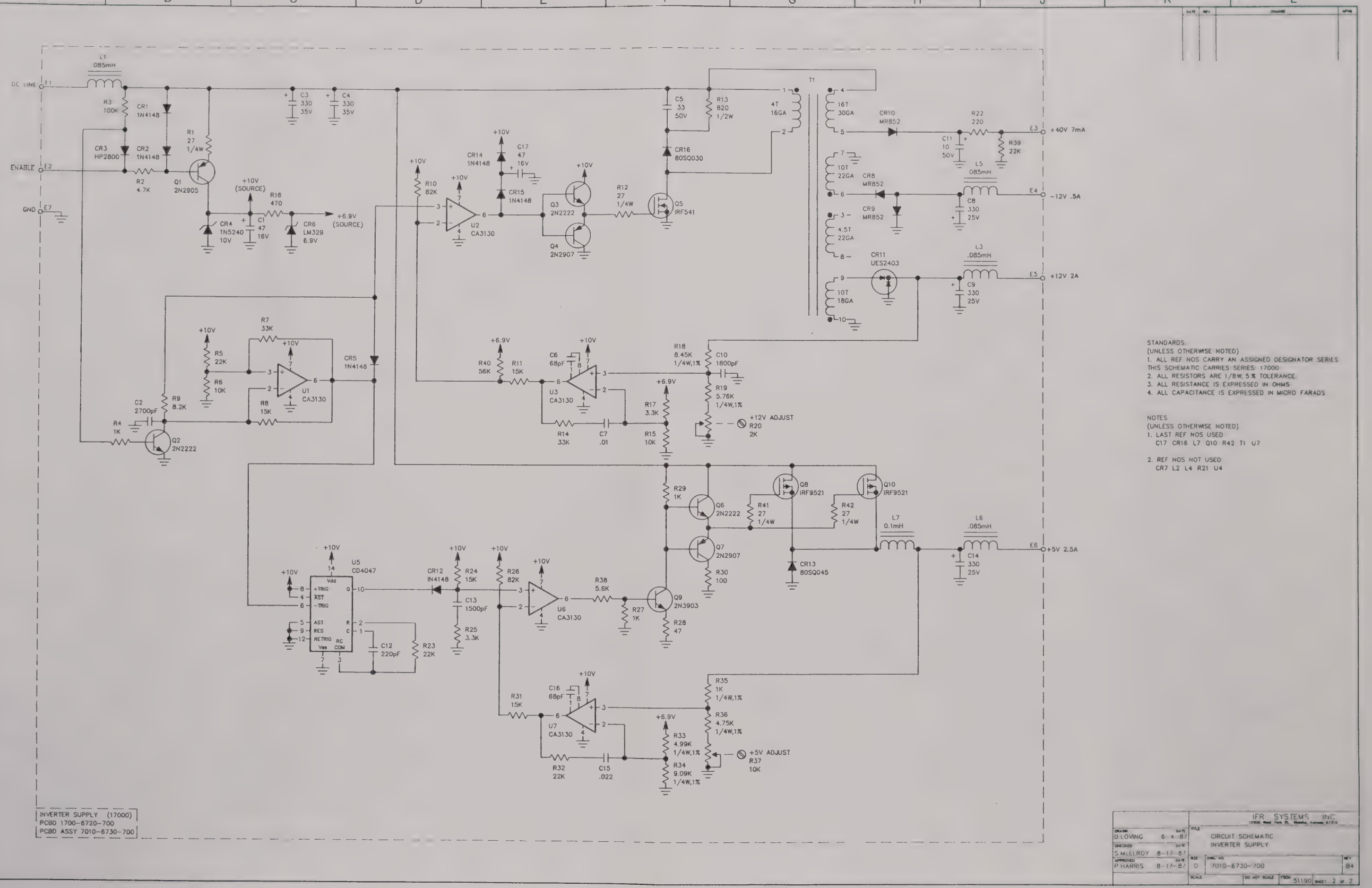
TITLE PC BD ASS'Y
POWER DISTRIBUTION

SIZE D | DWG NO 7010-6830-000 | REV B-2

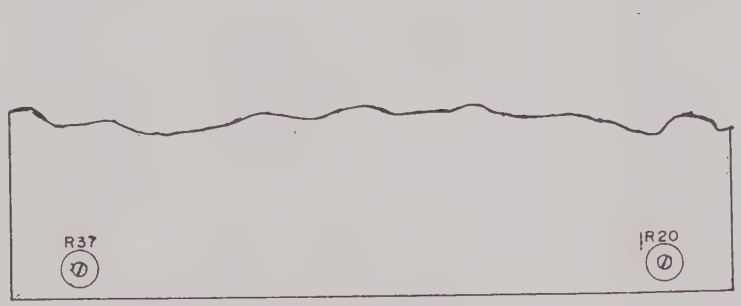
SCALE 2:1 | WT | SHEET 1 OF 1

ASSY NO.	REVISION	DESCRIPTION
7010-6830-000	B2	PCB ASSY POWER DISTRIBUTION

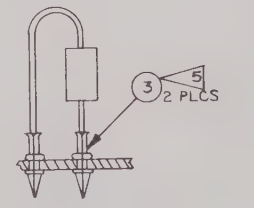
REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	1.50	6001-5000-001	WIRE,HOOK,TFE,20GA, 7S,BLACK
	1.20	6001-5000-007	WIRE,HOOK,TFE,20GA, 7S,BLUE
	3.70	6002-0000-001	WIRE,HOOK,TFE,22GA, 7S,BLACK
	1.70	6002-0000-003	WIRE,HOOK,TFE,22GA, 7S,RED
	2.30	6002-0000-004	WIRE,HOOK,TFE,22GA, 7S,ORANGE
	1.70	6002-0000-005	WIRE,HOOK,TFE,22GA, 7S,YELLOW
	.80	6002-0000-008	WIRE,HOOK,TFE,22GA, 7S,VIOLET
	2.40	6003-0000-001	WIRE,HOOK,TFE,26GA, 7S,BLACK
	2.40	6003-0000-003	WIRE,HOOK,TFE,26GA, 7S,RED
	.80	6003-0000-017	WIRE,HOOK,TFE,26GA, 7S,WHT/BLU
*01	1.00	1700-6720-500	PC BD,POWER DISTRIBUTION
*02	17.00	2114-0000-022	CONTACT,DCANT,CRIMP,22-30,TIN
*03	7.00	2114-9002-001	CONTACT SKT,26-22GA,SHF001T8SS
*04	3.00	2127-9900-100	KEY,POLARIZIN,MOLEX 15-04-9209
*05	18.00	6004-6005-400	TY-RAP,4.0 LG
*06	.00	1050-0000-073	WIRE,BUS,TINNED COPPER,22GA
*07	.30	6011-0027-001	TUBING,TF,22 AWG,NATURAL,TW
*08	.30	6010-0125-100	TUBING,HS, 1/8 ID,CLEAR
B10001-P1	2.00	2115-9002-002	CONN,RECT.098 PLUG 2-P,SMP02VB
C16001	1.00	1627-2240-450	CAP,UF .22, 50V,CAC04Z5U
C16002	1.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
E16008	6.00	2155-1010-020	TERM STRIP,.100C,STR,20-P
E16009	-.--	2155-1010-020	TERM STRIP,.100C,STR,20-P
E16010	-.--	2155-1010-020	TERM STRIP,.100C,STR,20-P
E16011	-.--	2155-1010-020	TERM STRIP,.100C,STR,20-P
E16012	-.--	2155-1010-020	TERM STRIP,.100C,STR,20-P
E16013	-.--	2155-1010-020	TERM STRIP,.100C,STR,20-P
P15002	-.--	2115-9002-002	CONN,RECT.098 PLUG 2-P,SMP02VB
P15003	1.00	2115-0001-005	CONN,MOLEX 22-01-2051
P19001	1.00	2115-0000-013	CONN,C HSG,.100C,10-P
P23005	1.00	2115-9002-005	CONN,RECT.098 PLUG 5-P,SMP05VB
P23017	1.00	2125-0000-003	SOCKET,TUBE,MINI,7-P
PXXXXX	1.00	2115-0000-014	CONN PLASTIC MOLEX 22-01-2151
R16001	1.00	4703-0331-003	RES, 5, 1/2W, 330 OHM
R16002	1.00	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R16003	1.00	4756-3110-300	POT, 10K OHM, 3339W-1-103


DC LINE
ENABLE
GND
L1 085mH
R3 100K
CR1 1N4148
CR3 HP2800
CR2 1N4148
R1 27 1/4W
R2 4.7K
Q1 2N2905
+10V (SOURCE)
R16 470
C1 47 16V
CR4 1N5240 10V
CR6 LM329 6.9V
+6.9V (SOURCE)
C3 330 35V
C4 330 35V
R10 82K
CR14 1N4148
C17 47 16V
CR15 1N4148
U2 CA3130
Q3 2N2222
Q4 2N2907
R12 27 1/4W
Q5 IRF541
C5 33 50V
R13 820 1/2W
CR16 80SQ030
4T 16GA
T1
16T 30GA
CR10 MR852
R22 220
C11 10 50V
R39 22K
+40V 7mA
10T 22GA
CR8 MR852
L5 085mH
C8 330 25V
-12V .5A
CR9 MR852
4.5T 22GA
CR11 UES2403
L3 .085mH
C9 330 25V
+12V 2A
10T 18GA
R7 33K
R5 22K
R6 10K
U1 CA3130
R8 15K
CR5 1N4148
C2 2700pF
R9 8.2K
R4 1K
Q2 2N2222
R40 56K
R11 15K
C6 68pF
U3 CA3130
R14 33K
C7 .01
R18 8.45K 1/4W,1%
C10 1800pF
R19 5.76K 1/4W,1%
R17 3.3K
R15 10K
+12V ADJUST R20 2K
R29 1K
Q6 2N2222
Q8 IRF9521
Q10 IRF9521
R41 27 1/4W
R42 27 1/4W
L7 0.1mH
L6 .085mH
E6
+5V 2.5A
Q7 2N2907
R30 100
CR13 80SQ045
C14 330 25V
U5 CD4047
CR12 IN4148
R24 15K
R26 82K
C13 1500pF
R25 3.3K
U6 CA3130
R38 5.6K
R27 1K
Q9 2N3903
R28 47
C12 220pF
R23 22K
R31 15K
C16 68pF
U7 CA3130
R32 22K
C15 .022
R35 1K 1/4W,1%
R36 4.75K 1/4W,1%
R33 4.99K 1/4W,1%
R34 9.09K 1/4W,1%
+5V ADJUST R37 10K
STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REF NOS CARRY AN ASSIGNED DESIGNATOR SERIES THIS SCHEMATIC CARRIES SERIES: 17000
2. ALL RESISTORS ARE 1/8W, 5% TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS
4. ALL CAPACITANCE IS EXPRESSED IN MICRO FARADS
NOTES
(UNLESS OTHERWISE NOTED)
1. LAST REF NOS USED
C17 CR16 L7 Q10 R42 T1 U7
2. REF NOS NOT USED
CR7 L2 L4 R21 U4
INVERTER SUPPLY (17000)
PCBD 1700-6720-700
PCBD ASSY 7010-6730-700
IFR SYSTEMS INC.
D LOVING 6 4 87
S McELROY 8-17-87
P HARRIS 8-17-87
CIRCUIT SCHEMATIC
INVERTER SUPPLY
7010-6730-700
B4
SIZE D
SCALE DO NOT SCALE
51190
SHEET 2 OF 2

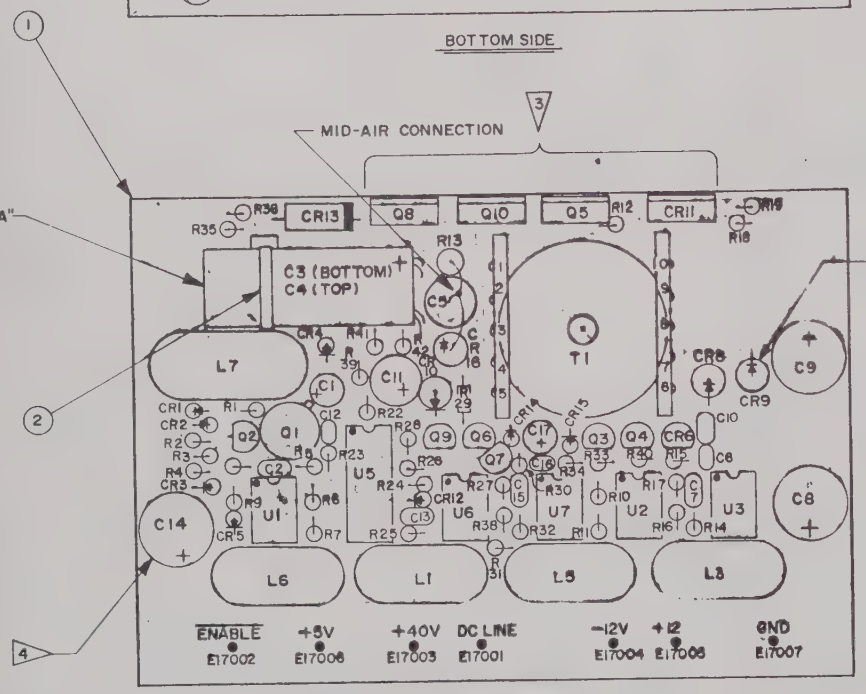
DATE	REV	CHANGE	APVD
6-16-87	B	DESIGN RELEASE	
8-27-87	B-1	REF #513	
11-18-87	B-1	PROD. RELEASE	
9-6-88	B-2	INC ECN 11486	JR
10-27-88	B-3	INC RC11759	AO
4-27-89	B-4	INC ECN 12345	AO



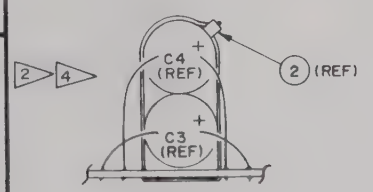
BOTTOM SIDE



"DETAIL B"
NO SCALE



TOP SIDE



DETAIL "A"

NOTES:

1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES. THIS DRAWING CARRIES SERIES 17000 (ei. R1 IS R17001).
2. C4 IS INSTALLED ON TOP OF C3 THEN SECURED WITH ITEM 2 AS SHOWN.
3. USE JIG TO INSERT Q5, Q8, Q10 & CR11
4.
5. ASSY PROCEDURES:
   A. INSERT ITEM 3 (6) PLCS. WHERE CR8, CR9, CR10 ARE TO BE INSTALLED.
   B. SOLDER TERMINALS (ITEM 3) INTO PLACE.
   C. INSERT CR8, CR9, & CR10 INTO TERMINALS & SOLDER.

DRAWN	SIGLER 5/28/87	IFR SYSTEMS INC	
CHECKED	C.K. MARKS 6/02/87	TITLE	PCB ASS'Y, INVERTER SUPPLY
APPROVED	[illegible] 6/4/87	SIZE C	DWG NO 7010-6730-700 REV B-4
		SCALE 2:1	DO NOT SCALE THIS DRAWING FSCM 57180 SHEET 1 OF 2

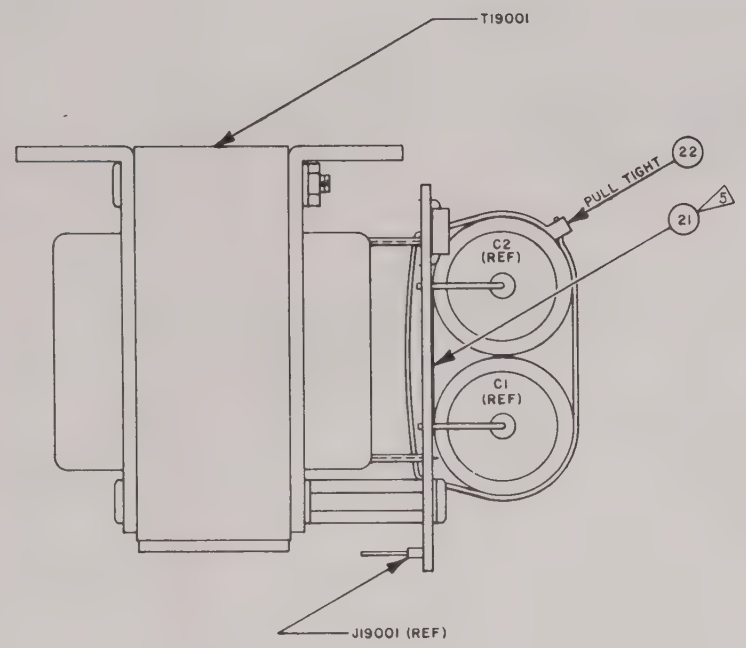
ASSY NO.	REVISION	DESCRIPTION
7010-6730-700	B4	PCB ASSY, INVERTER SUPPLY

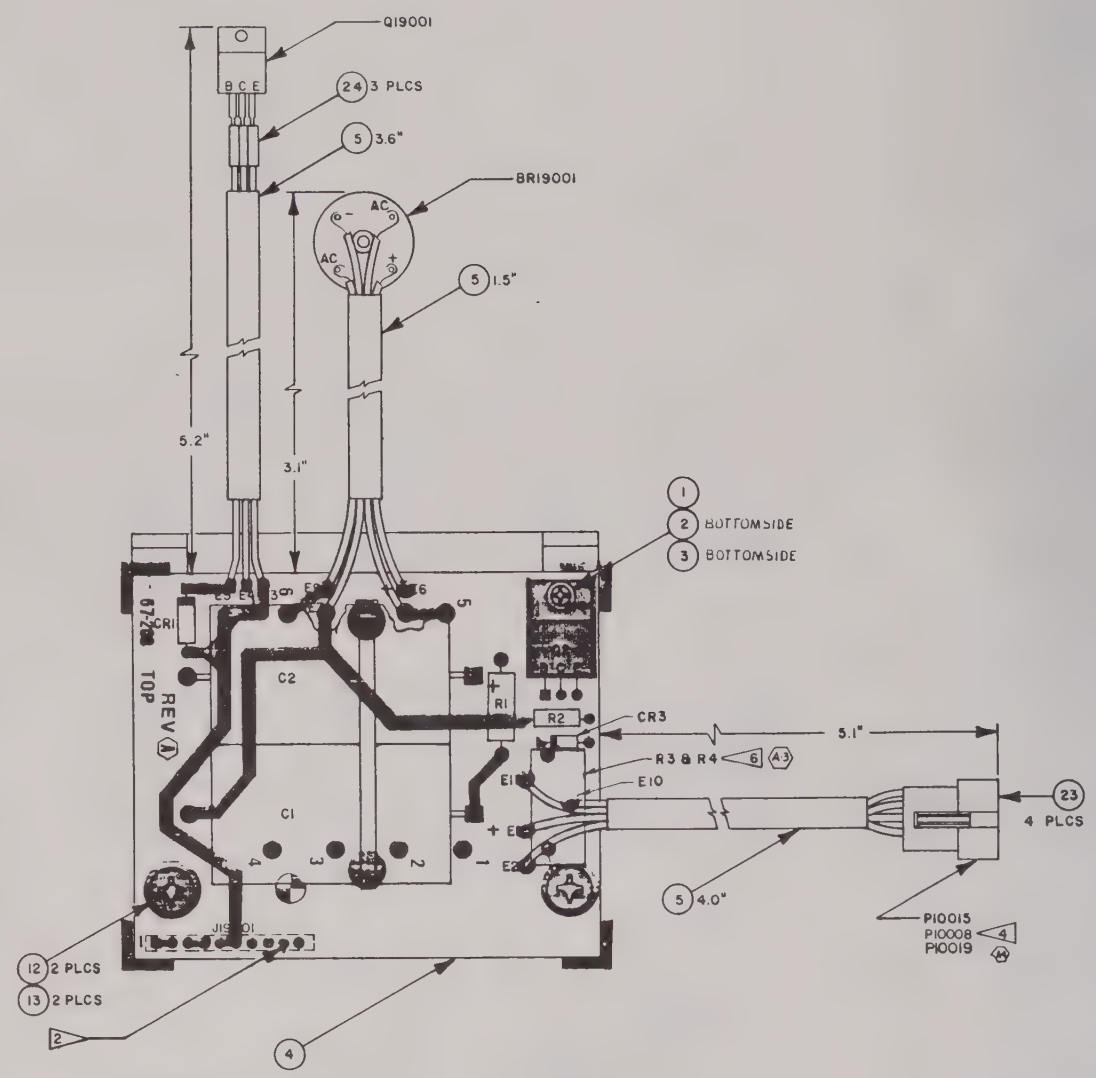
REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6720-700	PC BD,INVERTER SUPPLY
*02	1.00	6004-6005-550	TY-RAP,5.5 LG
*03	6.00	2813-0000-006	TERMINAL, TUBULAR PC MTG
C17001	2.00	1580-4700-216	CAP,UF 47, 16V,ELE,
C17002	1.00	1506-0272-017	CAP,PF 2700, 100V,NPO, 5
C17003	2.00	1580-3310-360	CAP,UF 330, 35V,ELE,RDL
C17004	-.--	1580-3310-360	CAP,UF 330, 35V,ELE,RDL
C17005	1.00	1502-0334-012	CAP,UF .33, 50V,MPC, 5
C17006	2.00	1506-0680-017	CAP,PF 68, 100V,NPO, 5
C17007	1.00	1506-0103-017	CAP,UF .010, 100V,CK05BX
C17008	3.00	1580-3310-025	CAP,UF 330, 25V,ELE,RDL
C17009	-.--	1580-3310-025	CAP,UF 330, 25V,ELE,RDL
C17010	1.00	1506-0182-017	CAP,PF 1800, 100V,NPO, 5
C17011	1.00	1580-1002-460	CAP,UF 10, 50V,ELE,RDL
C17012	1.00	1506-0221-017	CAP,PF 220, 100V,NPO, 5
C17013	1.00	1506-0152-017	CAP,PF 1500, 100V,NPO, 5
C17014	-.--	1580-3310-025	CAP,UF 330, 25V,ELE,RDL
C17015	1.00	1625-2230-100	CAP,UF .022, 25V,NPO, 5
C17016	-.--	1506-0680-017	CAP,PF 68, 100V,NPO, 5
C17017	-.--	1580-4700-216	CAP,UF 47, 16V,ELE,
CR17001	6.00	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17002	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17003	1.00	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR17004	1.00	4818-0000-001	DIODE, 1N5240B ,ZENER, 10V,.5W
CR17005	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17006	1.00	4818-0000-015	DIODE,329C,6.9V ZENER REF
CR17007	5.00	0002-0000-000	*** REF DESIG NOT USED ***
CR17008	3.00	4818-0000-018	DIODE 3A 200V FAST RECOVERY
CR17009	-.--	4818-0000-018	DIODE 3A 200V FAST RECOVERY
CR17010	-.--	4818-0000-018	DIODE 3A 200V FAST RECOVERY
CR17011	1.00	4822-6010-150	RECT,UES2403 ,F RCVY, 150V,16A
CR17012	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17013	1.00	4920-5158-450	DIODE,80SQ045 ,RECT,PS,45V,8A
CR17014	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17015	-.--	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR17016	1.00	4920-5158-300	DIODE,80SQ030 ,RECT,PS,30V,8A
L17001	4.00	1800-5354-900	IND,TOROID,30-T #20 MAGNET
L17002	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L17003	-.--	1800-5354-900	IND,TOROID,30-T #20 MAGNET
L17004	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L17005	-.--	1800-5354-900	IND,TOROID,30-T #20 MAGNET
L17006	-.--	1800-5354-900	IND,TOROID,30-T #20 MAGNET
L17007	1.00	1800-5061-400	INDUCTOR,TOROID 18GA 30 TURNS
Q17001	1.00	4801-0000-004	TRANS, 2N2905 ,PNP HS SW
Q17002	3.00	4801-0000-001	TRANS, 2N2222 ,NPN HS SW
Q17003	-.--	4801-0000-001	TRANS, 2N2222 ,NPN HS SW
Q17004	2.00	4805-0000-001	TRANS,2N2907A,PNP HS SW (3251)
Q17005	1.00	5050-2454-100	TRANS,IRF-541 ,N-CH MOSFET
Q17006	-.--	4801-0000-001	TRANS, 2N2222 ,NPN HS SW
Q17007	-.--	4805-0000-001	TRANS,2N2907A,PNP HS SW (3251)
Q17008	2.00	5050-2952-100	TRANS,IRF-9521 P-CH MOSFET
Q17009	1.00	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q17010	-.--	5050-2952-100	TRANS,IRF-9521 P-CH MOSFET

ASSY NO.	REVISION	DESCRIPTION
7010-6730-700	B4	PCB ASSY, INVERTER SUPPLY

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R17001	4.00	4702-0270-003	RES, 5, 1/4W, 27 OHM
R17002	1.00	4701-0472-003	RES, 5, 1/8W, 4.7K OHM
R17003	1.00	4701-0104-003	RES, 5, 1/8W, 100K OHM
R17004	3.00	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R17005	4.00	4701-0223-003	RES, 5, 1/8W, 22K OHM
R17006	2.00	4701-0103-003	RES, 5, 1/8W, 10K OHM
R17007	2.00	4701-0333-003	RES, 5, 1/8W, 33K OHM
R17008	4.00	4701-0153-003	RES, 5, 1/8W, 15K OHM
R17009	1.00	4701-0822-003	RES, 5, 1/8W, 8.2K OHM
R17010	2.00	4701-0823-003	RES, 5, 1/8W, 82K OHM
R17011	-.--	4701-0153-003	RES, 5, 1/8W, 15K OHM
R17012	-.--	4702-0270-003	RES, 5, 1/4W, 27 OHM
R17013	1.00	4703-0821-003	RES, 5, 1/2W, 820 OHM
R17014	-.--	4701-0333-003	RES, 5, 1/8W, 33K OHM
R17015	-.--	4701-0103-003	RES, 5, 1/8W, 10K OHM
R17016	1.00	4701-0471-003	RES, 5, 1/8W, 470 OHM
R17017	2.00	4701-0332-003	RES, 5, 1/8W, 3.3K OHM
R17018	1.00	4706-8451-001	RES, 1, 1/4W, 8.45K OHM
R17019	1.00	4706-5761-001	RES, 1, 1/4W, 5.76K OHM
R17020	1.00	4752-0202-002	POT, 2K OHM, 62-1-1-202
R17021	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R17022	1.00	4701-0221-003	RES, 5, 1/8W, 220 OHM
R17023	-.--	4701-0223-003	RES, 5, 1/8W, 22K OHM
R17024	-.--	4701-0153-003	RES, 5, 1/8W, 15K OHM
R17025	-.--	4701-0332-003	RES, 5, 1/8W, 3.3K OHM
R17026	-.--	4701-0823-003	RES, 5, 1/8W, 82K OHM
R17027	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R17028	1.00	4701-0470-003	RES, 5, 1/8W, 47 OHM
R17029	-.--	4701-0102-003	RES, 5, 1/8W, 1.0K OHM
R17030	1.00	4701-0101-003	RES, 5, 1/8W, 100 OHM
R17031	-.--	4701-0153-003	RES, 5, 1/8W, 15K OHM
R17032	-.--	4701-0223-003	RES, 5, 1/8W, 22K OHM
R17033	1.00	4706-4991-001	RES, 1, 1/4W, 4.99K OHM
R17034	1.00	4706-9091-001	RES, 1, 1/4W, 9.09K OHM
R17035	1.00	4706-1001-001	RES, 1, 1/4W, 1.00K OHM
R17036	1.00	4706-4751-001	RES, 1, 1/4W, 4.75K OHM
R17037	1.00	4752-0103-002	POT, 10K OHM, 62-1-1-103
R17038	1.00	4701-0562-003	RES, 5, 1/8W, 5.6K OHM
R17039	-.--	4701-0223-003	RES, 5, 1/8W, 22K OHM
R17040	1.00	4701-0563-003	RES, 5, 1/8W, 56K OHM
R17041	-.--	4702-0270-003	RES, 5, 1/4W, 27 OHM
R17042	-.--	4702-0270-003	RES, 5, 1/4W, 27 OHM
T17001	1.00	5604-5355-101	TRANSFORMER,INVERTER SUPPLY
U17001	5.00	3133-0000-024	IC,3130,BIMOS OP AMP,PLAST DIP
U17002	-.--	3133-0000-024	IC,3130,BIMOS OP AMP,PLAST DIP
U17003	-.--	3133-0000-024	IC,3130,BIMOS OP AMP,PLAST DIP
U17004	-.--	0002-0000-000	*** REF DESIG NOT USED ***
U17005	1.00	3133-0000-016	IC,4047B,ASTABLE MULTIVIBRATOR
U17006	-.--	3133-0000-024	IC,3130,BIMOS OP AMP,PLAST DIP
U17007	-.--	3133-0000-024	IC,3130,BIMOS OP AMP,PLAST DIP

DATE	REV	CHANGE	APVD
6-87	A	DESIGN RELEASE	
8-87	A-1	REF. # 513	SLS
11-87	A-1	PROD. RELEASE	
1-8-88	A-2	INC ECN 10645	RB
7-28-88	A-3	INC ECN 11406	AO
9-88	A-4	INC RC 11497	JR



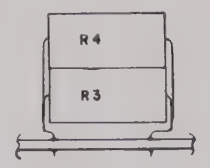


NOTES:

1. THIS PC BD ASSY CARRIES AN ASSIGNED REF DES SERIES OF 19000 (i.e., R1 IS R19001)
2. REMOVE PIN 9 FROM J19001 FOR KEYING
3. TRIM ALL LEADS MIN HEIGHT (.05 MAX)
4. P10015 APPLIES TO I-1402 ASSY
   P10008 APPLIES TO I-1401 ASSY
   P10019 APPLIES TO S-1403 ASSY
5. INSULATOR (ITEM 21) IS TO WRAP COMPLETELY AROUND C1 AND C2
6. KEEP LEADS OF R3 & R4 CLOSE TO BODIES OF RESISTORS TO AVOID SHORTING. SEE DETAIL "A".

WIRING LIST

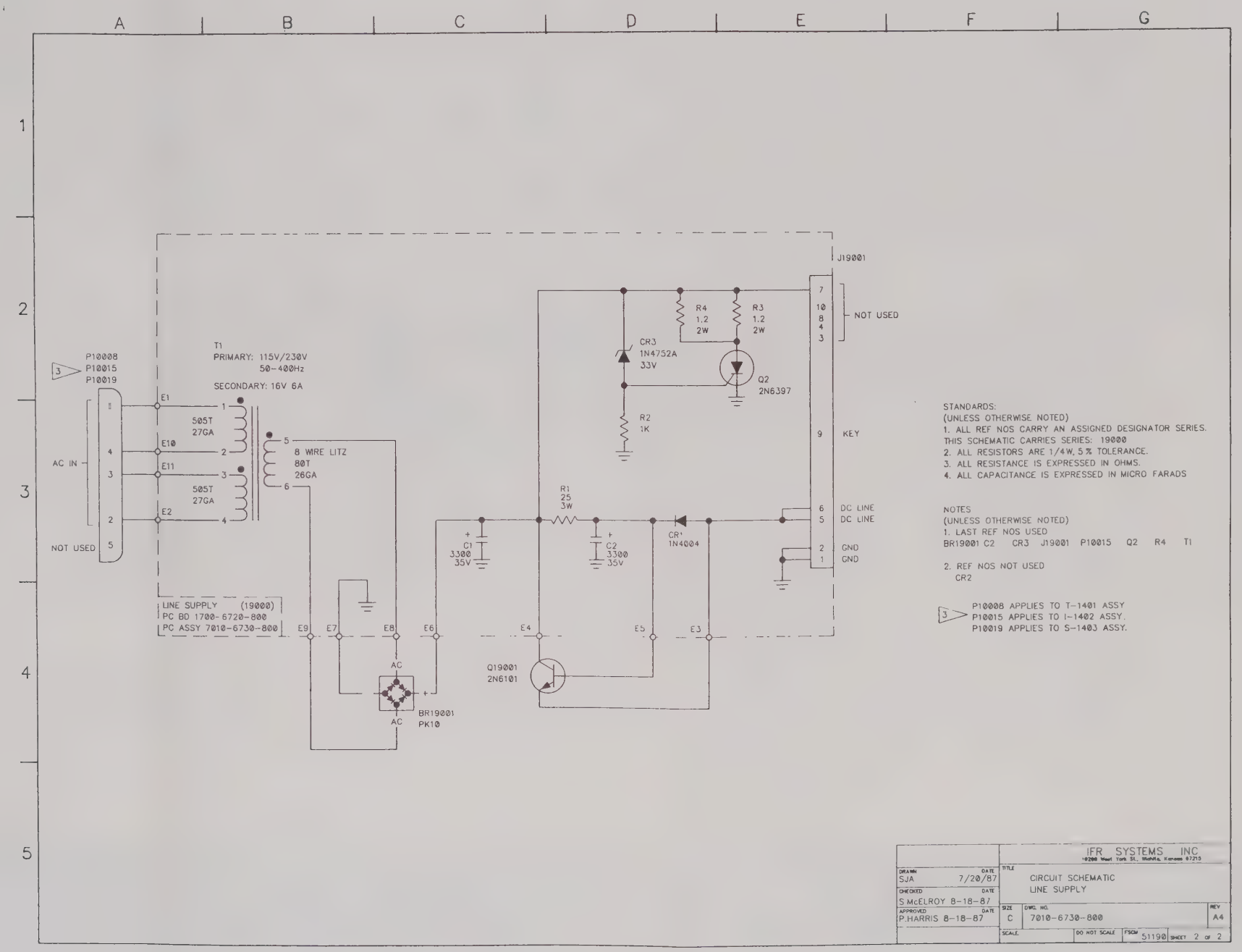
FROM	TO	COLOR	AWG	LENGTH
P10008-1	E1	BRN	22 GA	5.4"
2	E2	GRN	22 GA	5.4"
3	E11	BLU	22 GA	5.4"
4	E10	WHT	22 GA	5.0"
5	N/C			
BR19001-+	E6	RED	20 GA	3.2"
-	E7	BLK	20 GA	3.6"
AC (BTM LEFT)	E9	GRN	20 GA	3.2"
AC (TOP RGHT)	E8	ORG	20 GA	3.6"
Q19001-E	E3	RED	20 GA	4.6"
B	E5	BLK	20 GA	4.6"
C	E4	GRN	20 GA	4.6"



A3 DETAIL "A"

IFR SYSTEMS INC

DRAWN	DWPS 6-4-87	TITLE: PC BD ASSY LINE SUPPLY
CHECKED	CK MARKS 6/11/87	
APPROVED	PDM 6-19-87	SIZE D; DWG NO. 7010-6730-800; REV A4
		SCALE 2:1; DO NOT SCALE; FSCM 57980; SHEET 1 OF 2


A
B
C
D
E
F
G
1
2
3
4
5
J19001
7
10
8
4
3
NOT USED
R4
1.2
2W
R3
1.2
2W
CR3
1N4752A
33V
Q2
2N6397
R2
1K
9
KEY
P10008
P10015
P10019
3
T1
PRIMARY: 115V/230V
50-400Hz
SECONDARY: 16V 6A
E1
505T
27GA
E10
E11
505T
27GA
E2
AC IN
NOT USED
8 WIRE LITZ
80T
26GA
R1
25
3W
C1
3300
35V
C2
3300
35V
CR1
1N4004
6
5
2
1
DC LINE
DC LINE
GND
GND
LINE SUPPLY (19000)
PC BD 1700-6720-800
PC ASSY 7010-6730-800
E9
E7
E8
E6
E4
E5
E3
AC
AC
BR19001
PK10
Q19001
2N6101
STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REF NOS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 19000
2. ALL RESISTORS ARE 1/4W, 5% TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.
4. ALL CAPACITANCE IS EXPRESSED IN MICRO FARADS
NOTES
(UNLESS OTHERWISE NOTED)
1. LAST REF NOS USED
BR19001 C2 CR3 J19001 P10015 Q2 R4 T1
2. REF NOS NOT USED
CR2
3 P10008 APPLIES TO T-1401 ASSY
P10015 APPLIES TO I-1402 ASSY.
P10019 APPLIES TO S-1403 ASSY.
IFR SYSTEMS, INC.
10200 West York St., Wichita, Kansas 67215
DRAWN SJA DATE 7/20/87
CHECKED S McELROY 8-18-87
APPROVED P.HARRIS 8-18-87
TITLE
CIRCUIT SCHEMATIC
LINE SUPPLY
SIZE C
DWG. NO. 7010-6730-800
REV A4
SCALE
DO NOT SCALE
FSCM 51190
SHEET 2 OF 2

ASSY NO.	REVISION	DESCRIPTION
7010-6730-800	A4	PCB ASSY,LINE SUPPLY

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	.63	6001-5000-001	WIRE,HOOK,TFE,20GA, 7S,BLACK
	.63	6001-5000-003	WIRE,HOOK,TFE,20GA, 7S,RED
	.25	6001-5000-004	WIRE,HOOK,TFE,20GA, 7S,ORANGE
	.63	6001-5000-006	WIRE,HOOK,TFE,20GA, 7S,GREEN
	.42	6002-0000-002	WIRE,HOOK,TFE,22GA, 7S,BROWN
	.42	6002-0000-006	WIRE,HOOK,TFE,22GA, 7S,GREEN
	.42	6002-0000-007	WIRE,HOOK,TFE,22GA, 7S,BLUE
	.42	6002-0000-010	WIRE,HOOK,TFE,22GA, 7S,WHITE
*01	1.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*02	1.00	2850-0000-008	NUT,HEX,REG PAT,4-40
*03	1.00	2840-0000-003	WASHER,LOCK,INT TOOTH,4
*04	1.00	1700-6720-800	PC BD, LINE SUPPLY, 1402
*05	1.10	6012-0166-100	TUBING,PVC-105, 6 AWG,CLEAR
*12	2.00	2805-0250-006	SCREW 8-32X1/4 PBHMS
*13	2.00	2840-0000-002	WASHER,LOCK,INT TOOTH,8
*21	1.00	3107-5156-605	INSULATOR,LINE SUPPLY CAPS
*22	1.00	6004-6005-800	TY-RAP,8.0 LG
*23	4.00	2114-9001-001	CONTACT PIN,26-22GA,SYM001T0.6
*24	.16	6010-0125-100	TUBING,HS, 1/8 ID,CLEAR
BR19001	1.00	4823-0000-001	RECT,PK10 ,BRIDGE, 100V,10A
C19001	2.00	1580-3322-210	CAP,UF 3300, 35V,ELE, 16
C19002	-.--	1580-3322-210	CAP,UF 3300, 35V,ELE, 16
CR19001	1.00	4815-0000-002	DIODE, 1N4004 ,RECT, 400V, 1A
CR19002	1.00	0002-0000-000	*** REF DESIG NOT USED ***
CR19003	1.00	4901-4752-100	DIODE, 1N4752A ,ZENER, 33V, 1W
J19001	1.00	2115-0000-057	CONN,10-P STR KEYED HDR,GOLD
PXXXXX	1.00	2115-9001-005	CONN,RECT.098 RCPT 5-P,SMR05VB
Q19001	1.00	4811-0000-005	TRANS 2N6488 NPN POWER
Q19002	1.00	4822-0000-002	RECT,2N6397,THYR TO-220
R19001	1.00	4707-0250-002	RES, 5, 3W, 25 OHM WW
R19002	1.00	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R19003	2.00	4705-0129-002	RES, 5, 2W 1.2 OHM,WW
R19004	-.--	4705-0129-002	RES, 5, 2W 1.2 OHM,WW
T19001	1.00	5604-0000-013	XFMR, AC LINE 16V 2.5A

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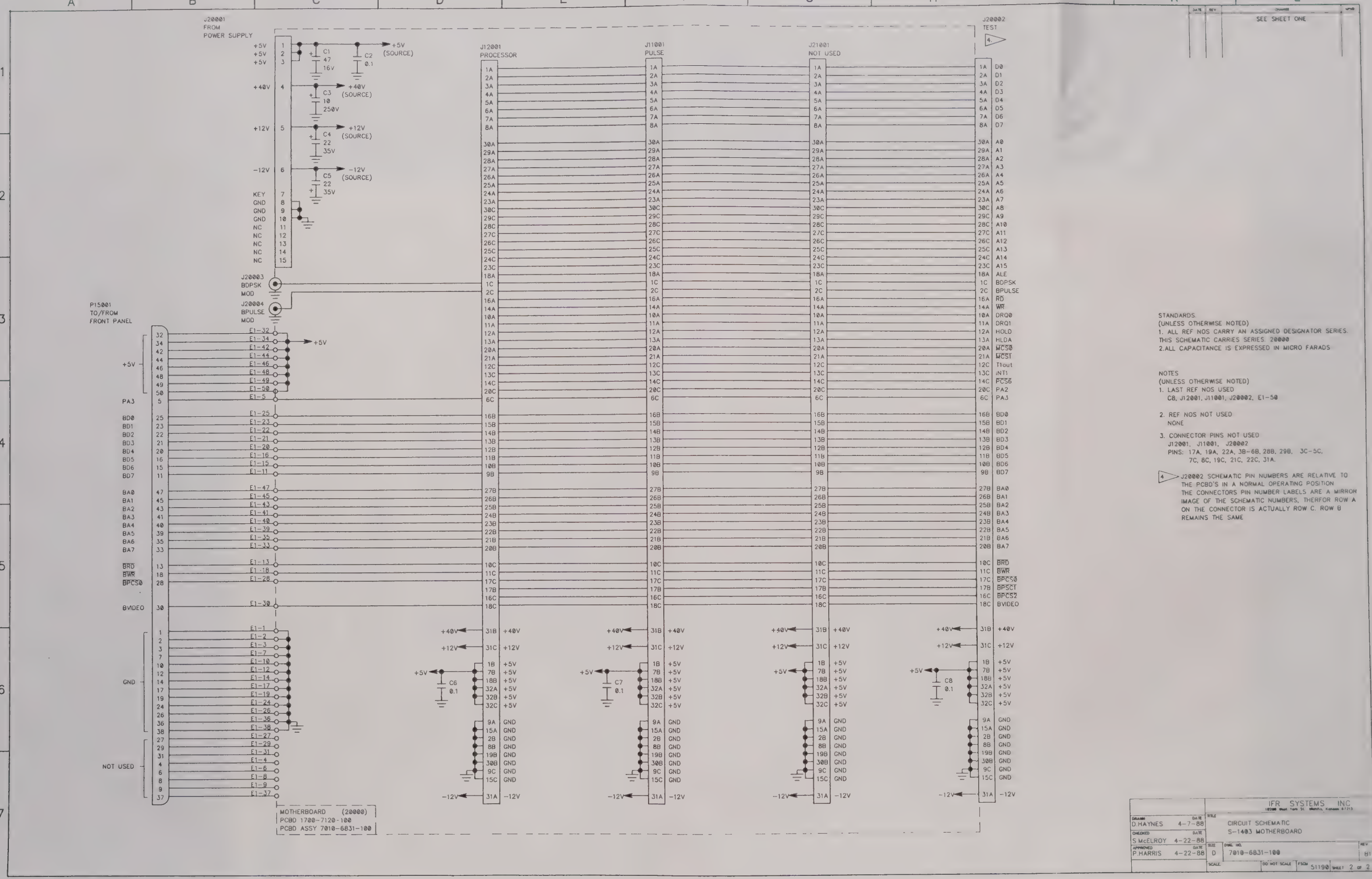


SEE SHEET ONE

STANDARDS
(UNLESS OTHERWISE NOTED)
1. ALL REF NOS CARRY AN ASSIGNED DESIGNATOR SERIES. THIS SCHEMATIC CARRIES SERIES: 20000
2.ALL CAPACITANCE IS EXPRESSED IN MICRO FARADS

NOTES
(UNLESS OTHERWISE NOTED)
1. LAST REF NOS USED
C8, J12001, J11001, J20002, E1-50

2. REF NOS NOT USED
NONE

3. CONNECTOR PINS NOT USED
J12001, J11001, J20002
PINS: 17A, 19A, 22A, 3B-6B, 28B, 29B, 3C-5C, 7C, 8C, 19C, 21C, 22C, 31A.

4 > J20002 SCHEMATIC PIN NUMBERS ARE RELATIVE TO THE PCBD'S IN A NORMAL OPERATING POSITION THE CONNECTORS PIN NUMBER LABELS ARE A MIRROR IMAGE OF THE SCHEMATIC NUMBERS, THERFOR ROW A ON THE CONNECTOR IS ACTUALLY ROW C. ROW B REMAINS THE SAME

	IFR SYSTEMS INC	
DRAWN D.HAYNES 4-7-88	TITLE CIRCUIT SCHEMATIC S-1403 MOTHERBOARD	
CHECKED S.McELROY 4-22-88		
APPROVED P.HARRIS 4-22-88	SIZE D DWG. NO. 7010-6831-100	REV B1
SCALE	DO NOT SCALE FSCM 51190 SHEET 2 OF 2	

ZONE	DATE	REV	CHANGE	APVD
	8/2/88	B1	PRODUCTION RELEASE PER ECN 11475	

1. FOR PCB ASSY DRAWING SEE 7010-7130-100 (T-1401 MOTHERBOARD)
2. SCHEMATIC FOR 7010-6831-100 IS SHEET 2 OF THIS DOCUMENT.

DRAWN P HAYNES	DATE 8/2/88	IFR SYSTEMS INC	
CHECKED S McELROY	DATE 8/2/88	TITLE PCB ASSY S-1403 MOTHERBOARD	
APPROVED P HARRIS	DATE 8/2/88	SIZE D	DWG NO 7010-6831-100	REV B1
		SCALE DO NOT SCALE	FSCM 51190	SHEET 1 OF 2

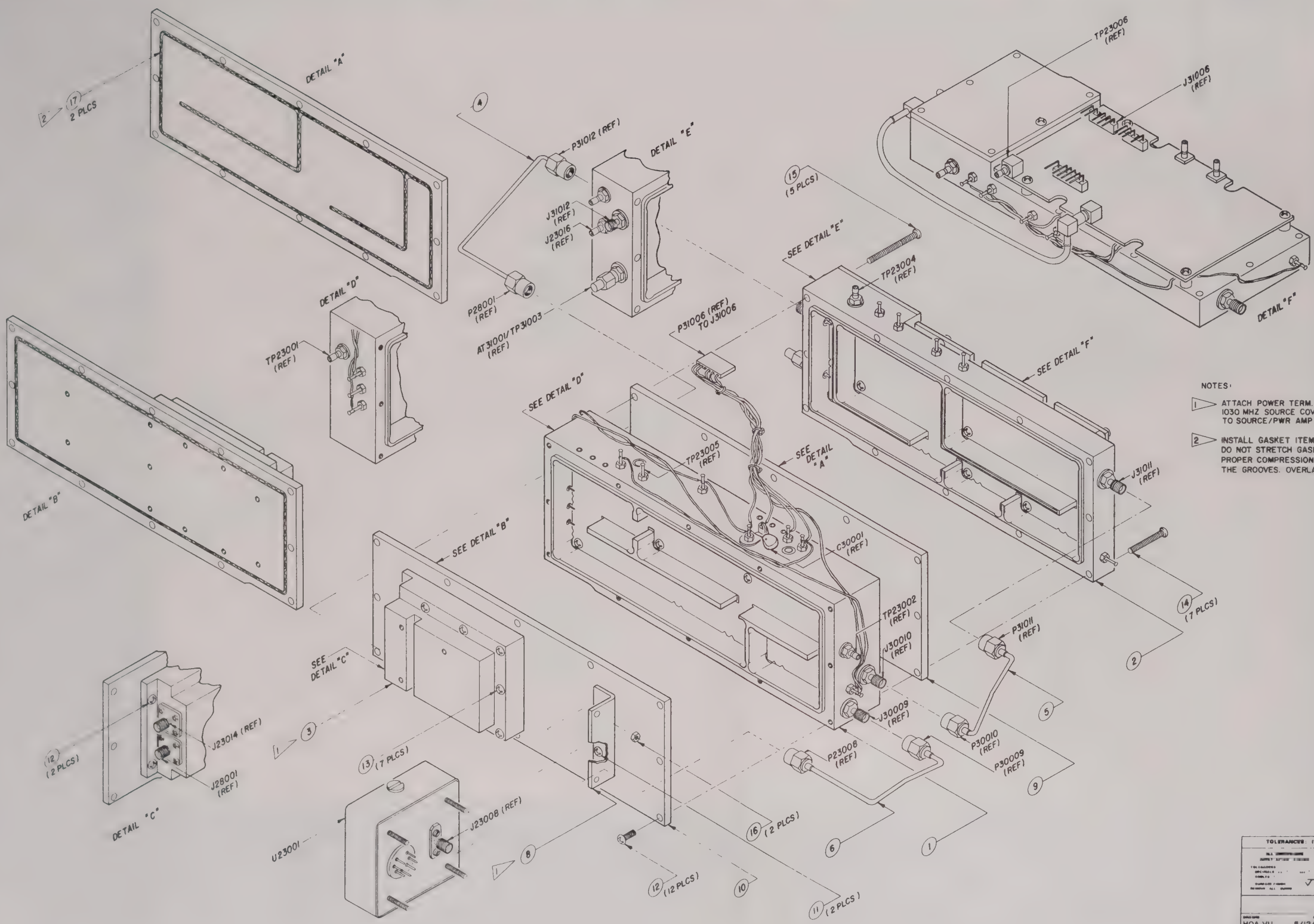
ASSY NO.	REVISION	DESCRIPTION
7010-7130-100	B2	PCB ASSY,MOTHERBOARD

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-7120-100	PC BD,MOTHERBOARD
*02	1.00	6045-6782-200	RBN CA ASSY,MTHRBD-THUMBWHEEL
C1	1.00	1580-4700-216	CAP,UF 47, 16V,ELE,
C2	4.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C3	1.00	1580-1000-365	CAP,UF 10, 250V,ELE, 50
C4	2.00	1580-2202-420	CAP,UF 22, 35V,ELE,RDL
C5	-.--	1580-2202-420	CAP,UF 22, 35V,ELE,RDL
C6	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C7	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C8	-.--	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
J11001	3.00	2129-1003-196	CONN,EURCON-C SKT.1 *.1*96P ST
J12001	-.--	2129-1003-196	CONN,EURCON-C SKT.1 *.1*96P ST
J20001	1.00	2129-1087-015	CONN, STR, SINGLE ROW, 15P,PCB
J20002	1.00	2129-1004-196	CONN,EURCON-C SKT.1*.1*96P R/A
J20003	2.00	2200-2010-400	CONN,M SMB,PC MTG,STR,.453LG
J20004	-.--	2200-2010-400	CONN,M SMB,PC MTG,STR,.453LG
J21001	-.--	2129-1003-196	CONN,EURCON-C SKT.1 *.1*96P ST

ASSY NO.	REVISION	DESCRIPTION
7010-6831-100	B1	PCB ASSY, MOTHERBD S-1403

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	1.00	7010-7130-100	PCB ASSY,MOTHERBOARD

DATE	REV	CHANGE	APVD
	A	DESIGN RELEASE	
3-4 88	B	REF #678	
5-3 88	C	REF #680/#688 HV	
5-19 88	D	REF #692 HV	
7-29 88	D	PROD REL PER ECN 11475 JR	SLR



NOTES:

1. ATTACH POWER TERM. ITEM (3) AND TCXO BRACKET ITEM (8) TO 1030 MHZ SOURCE COVER ITEM (10) BEFORE ATTACHING COVER TO SOURCE/PWR AMP MECH ASSY ITEM (1)
2. INSTALL GASKET ITEM (17) 2 PLCS SEE DETAILS "A" AND "B". DO NOT STRETCH GASKET MATERIAL WHEN INSTALLING. FOR PROPER COMPRESSION BE SURE GASKET FITS COMPLETELY INTO THE GROOVES. OVERLAP ENDS AND PRESS TOGETHER SECURELY

TOLERANCES: (UNLESS OTHERWISE SPECIFIED)

MATERIAL: NONE

FINISH: NONE

IFR SYSTEMS INC

DRAWN: HOA VU 5/12/88

TITLE: MECH ASSY, DIVERSITY S-1403

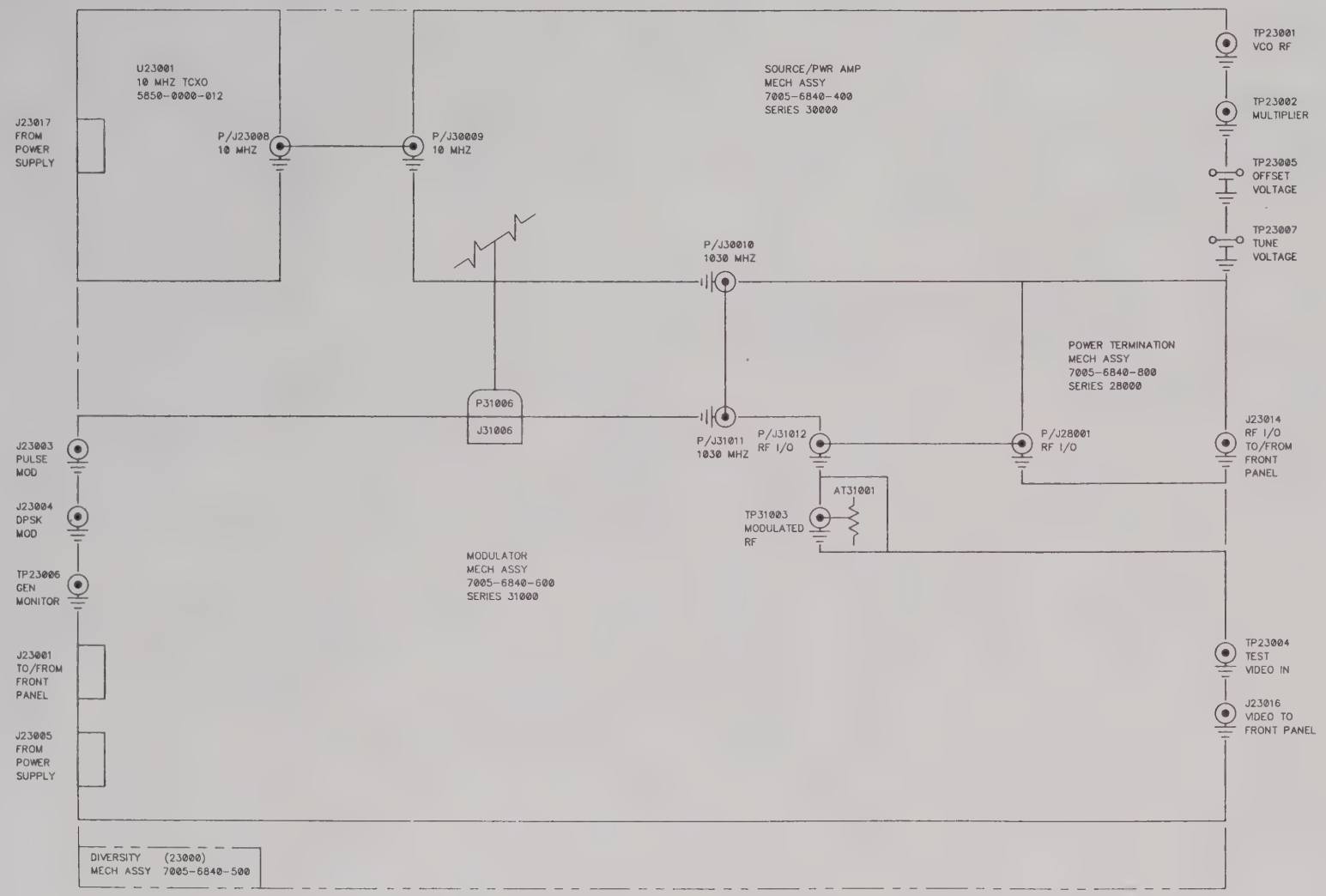
SIZE: D

DWG NO: 7005-6840-500

REV: D

SCALE: 1:1

SHEET 1 OF 2



STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES: 23000

NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED

2. REFERENCE NUMBERS NOT USED.

DATE	REV.	CHANGE	APVD

IFR SYSTEMS INC

DRAWN D.HAYNES 5/4/88	TITLE	CIRCUIT SCHEMATIC DIVERSITY MECH
CHECKED R.CRAWFORD 5/10/88		
APPROVED L.GREENBANK 5/10/88	SIZE D	DWG. NO. 7005-6840-500 REV D
SCALE	DO NOT SCALE	FSCM 51190 SHEET 2 OF 2

ASSY NO.	REVISION	DESCRIPTION
7005-6840-500	D	MECH ASSY, DIVERSITY

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	7005-6840-400	MECH ASSY,SOURCE/PWR AMP
*02	1.00	7005-6840-600	MECH ASSY,MODULATOR
*03	1.00	7005-6840-800	MECH ASSY,POWER TERMINATION
*04	1.00	6042-6880-300	COAX ASSY,S/R,MODULATOR/P TERM
*05	1.00	6042-6880-400	COAX ASSY,S/R,PWRAMP/MODULATOR
*06	1.00	6042-6880-500	COAX ASSY,S/R,SOURCE/TCXO
*08	1.00	1400-6851-400	BRKT,TCXO MTG
*09	1.00	1414-6850-300	COVER,DIVERSITY PWR AMP ENCL.
*10	1.00	1414-6850-400	COVER, 1030MHZ SOURCE ENCL.
*11	2.00	2803-0188-006	SCREW,4-40 X 3/16 PPHM
*12	14.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*13	7.00	2803-0625-006	SCREW,4-40 X 5/8 PPHM
*14	7.00	2803-0875-006	SCREW 4-40X7/8 PHIL BIND HD
*15	5.00	2803-1188-006	SCREW,4-40 X 1 3/16 PPHMS
*16	2.00	2850-0000-066	NUT,HEX,REG PAT,6-32
*17	3.20	6040-0010-012	CORD,SHLD,AL MESH,.062 DIA
U23001	1.00	5850-0000-012	OSC,TCXO 70D,10MHZ,+11V,-61DB

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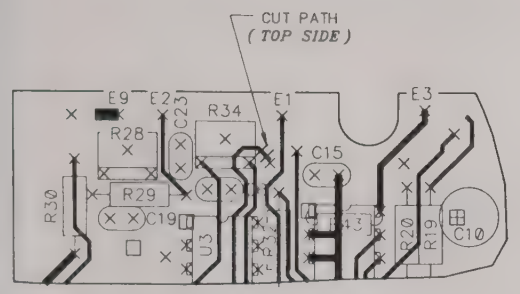
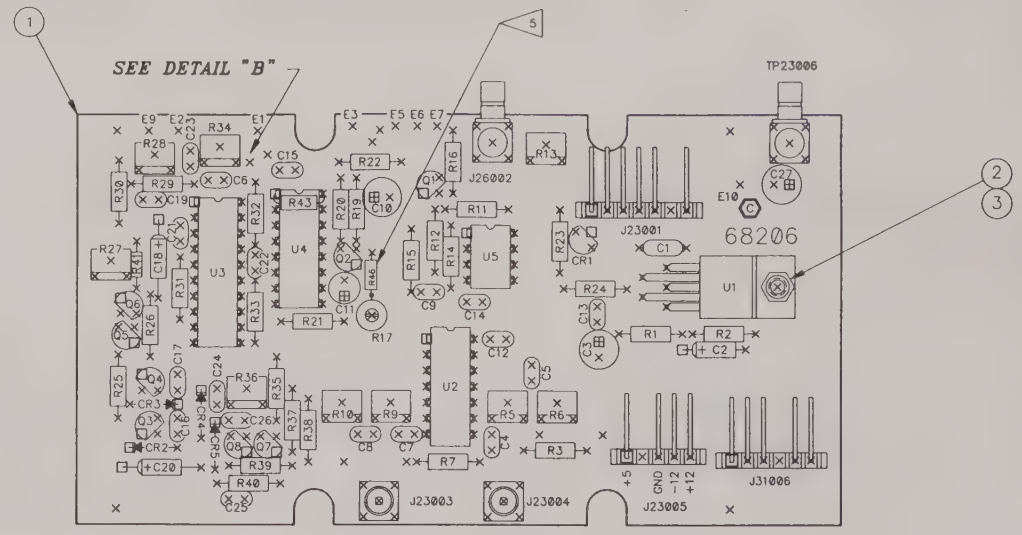
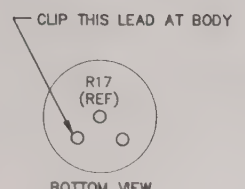
DATE	REV	CHANGE	APVD
3/31/88	B	DESIGN RELEASE	CJKM
4/14/88	B-1	REF #654	CJKM
4/21/88	B-2	REF #660	CJKM
5/24/88	C	REF #675/#675A WB	CJKM
6/23/88	C-1	REF #707 WB	CJKM
7/29/88	C-1	PROD REL PER ECN 11475 JR	BP
10/31/88	C-2	INC ECN 11736 JR	BP
12/7/88	C-3	INC RC 11940 JR	DC



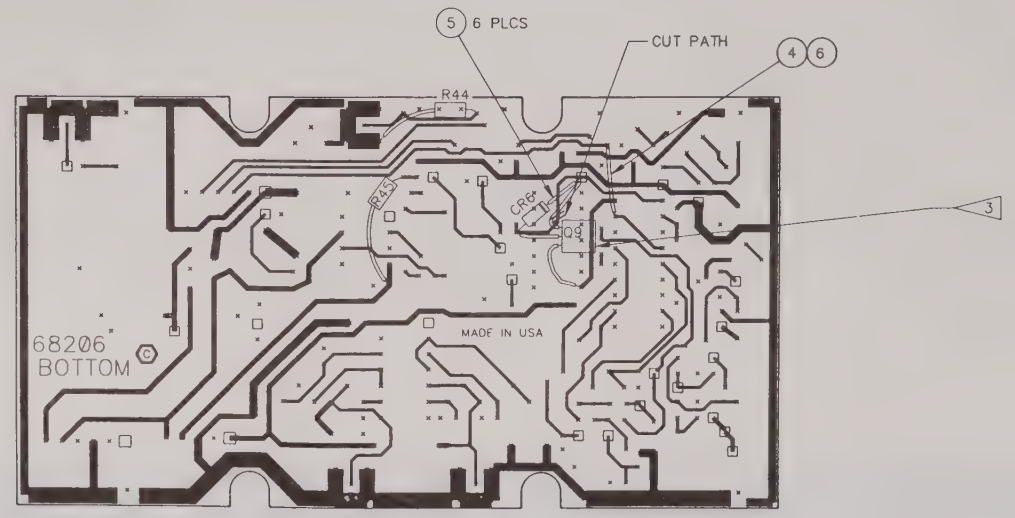
DETAIL B
NO SCALE



TOP SIDE



DETAIL A
NO SCALE



NOTES:

1. THIS PC BD ASSY CARRIERS A REF DES SERIES OF 26000 (i.e.,R1 IS R26001).
2. PADS AND FEED THRU'S ARE REPRESENTED BY "X" "□" INDICATES PIN 1 OR POLARITY.
3. INSTALL Q9 FLATSIDE DOWN.
4. REF. SCHEM. 7005-6840-600
5. USE SMALL AMOUNT OF RTV DPN 1050-0000-013. THESE ARE MIDAIR CONNECTIONS. R17 MUST SIT AS FLAT AS POSSIBLE.

	IFR SYSTEMS INC. 10200 West York St. Wichita, Kansas 67215	
DRAWN BARTLETT 5/24/88	TITLE PC BD ASS'Y DIVERSITY I/O	
CHECKED R. CRAWFORD 6/6/88		
APPROVED P.R. HARRIS 6/6/88	SIZE D	DWG. NO. 7010-6830-600 REV C-3
	SCALE 2:1	DO NOT SCALE FSCM 51190 SHEET 1 OF 1

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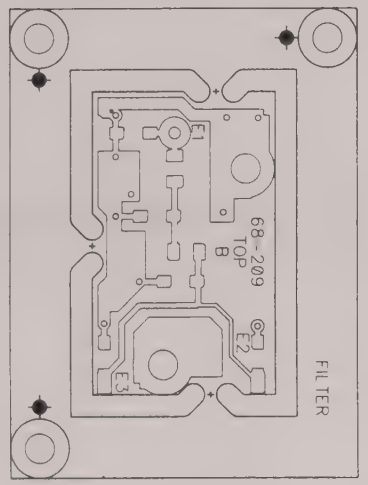
ASSY NO.	REVISION	DESCRIPTION
7010-6830-600	C3	PCB ASSY, DIVERSITY I/O

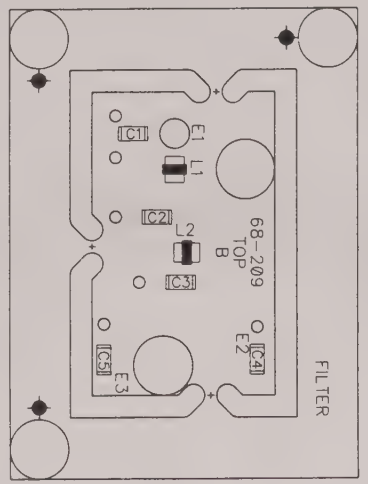
REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-600	PC BD DIVERSITY I/O
*02	1.00	2803-0188-006	SCREW,4-40 X 3/16 PPHM
*03	1.00	2850-0000-020	NUT,HEX,SMALL PAT,4-40
*04	.10	6011-0018-001	TUBING,TF,26 AWG,NATURAL,TW
*05	.40	6011-0027-001	TUBING,TF,22 AWG,NATURAL,TW
*06	.00	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
C26001	1.00	1521-0000-008	CAP,UF .10 50V,DIP Z5U *
C26002	3.00	1507-0105-018	CAP,UF 1.0, 35V,TANT, 20
C26003	1.00	1508-0157-020	CAP,UF 150, 15V,TANT,RDL
C26004	4.00	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
C26005	-.--	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
C26006	5.00	1506-0103-017	CAP,UF .010, 100V,CK05BX
C26007	-.--	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
C26008	-.--	1506-0101-017	CAP,PF, 100, 100V,NPO, 5
C26009	1.00	1506-0220-017	CAP,PF 22, 100V,NPO, 5
C26010	1.00	1580-4792-305	CAPACITOR 4.7 uF,35V *
C26011	1.00	1580-1000-200	CAP,UF, 10, 25V,ELE RDL
C26012	-.--	1506-0103-017	CAP,UF .010, 100V,CK05BX
C26013	-.--	1506-0103-017	CAP,UF .010, 100V,CK05BX
C26014	-.--	1506-0103-017	CAP,UF .010, 100V,CK05BX
C26015	-.--	1506-0103-017	CAP,UF .010, 100V,CK05BX
C26016	1.00	1506-0180-017	CAP,PF 18, 100V,NPO, 5
C26017	1.00	1506-0100-017	CAP,PF 10, 100V,NPO, 5
C26018	-.--	1507-0105-018	CAP,UF 1.0, 35V,TANT, 20
C26019	1.00	1506-0391-017	CAP,PF 390, 100V,NPO, 5
C26020	-.--	1507-0105-018	CAP,UF 1.0, 35V,TANT, 20
C26021	3.00	1506-0151-017	CAP,PF 150, 100V,NPO, 5
C26022	1.00	1506-0470-017	CAP,PF 47, 100V,NPO 5
C26023	-.--	1506-0151-017	CAP,PF 150, 100V,NPO, 5
C26024	-.--	1506-0151-017	CAP,PF 150, 100V,NPO, 5
C26025	1.00	1506-0331-017	CAP,PF 330, 100V,NPO, 5
C26026	1.00	1506-0271-017	CAP,PF 270, 100V,NPO, 5
C26027	1.00	1580-4702-105	CAP,UF 47, 10V,ELE,RDL
CR26001	1.00	4818-0000-015	DIODE,329C,6.9V ZENER REF
CR26002	4.00	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR26003	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR26004	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
CR26005	1.00	4815-0000-003	DIODE, 1N4148 ,SIGNAL, 75PRV
CR26006	-.--	4816-0000-001	DIODE,5082-2800,S BAR, 70VBR
J23001	1.00	2115-1002-007	CONN,MOLEX 22-05-2071
J23003	2.00	2200-2010-400	CONN,M SMB,PC MTG,STR,.453LG
J23004	-.--	2200-2010-400	CONN,M SMB,PC MTG,STR,.453LG
J23005	1.00	2115-1002-005	CONN,MOLEX 22-05-2051
J26002	2.00	2200-2094-300	CONN,M SMB,PC MTG,RTANG,NO THD
J31006	1.00	2115-1002-006	CONN,MOLEX 22-05-2061
Q26001	6.00	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q26002	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q26003	3.00	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
Q26004	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q26005	-.--	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
Q26006	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
Q26007	-.--	4807-0000-002	TRANS, 2N3905 ,PNP HS SW
Q26008	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW

ASSY NO.	REVISION	DESCRIPTION
7010-6830-600	C3	PCB ASSY, DIVERSITY I/O

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
Q26009	-.--	4807-0000-001	TRANS, 2N3903 ,NPN HS SW
R26001	1.00	4706-2802-001	RES, 1, 1/4W, 28.0K OHM
R26002	1.00	4706-2323-001	RES, 1, 1/4W, 232K OHM
R26003	2.00	4702-0822-003	RES, 5, 1/4W, 8.2K OHM
R26004	3.00	0002-0000-000	*** REF DESIG NOT USED ***
R26005	4.00	4753-0501-002	POT, 500 OHM, 62-2-1-501
R26006	-.--	4753-0501-002	POT, 500 OHM, 62-2-1-501
R26007	-.--	4702-0822-003	RES, 5, 1/4W, 8.2K OHM
R26008	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R26009	-.--	4753-0501-002	POT, 500 OHM, 62-2-1-501
R26010	-.--	4753-0501-002	POT, 500 OHM, 62-2-1-501
R26011	3.00	4702-0473-003	RES, 5, 1/4W, 47K OHM
R26012	-.--	4702-0473-003	RES, 5, 1/4W, 47K OHM
R26013	1.00	4756-2510-400	POT,100K OHM, 62-2-1-104
R26014	1.00	4702-0183-003	RES, 5, 1/4W, 18K OHM
R26015	5.00	4702-0471-003	RES, 5, 1/4W, 470 OHM
R26016	-.--	4702-0471-003	RES, 5, 1/4W, 470 OHM
R26017	1.00	4752-0102-002	POT, 1K OHM, 62-1-1-102
R26018	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R26019	-.--	4702-0471-003	RES, 5, 1/4W, 470 OHM
R26020	1.00	4706-9090-001	RES, 1, 1/4W, 909 OHM
R26021	-.--	4702-0473-003	RES, 5, 1/4W, 47K OHM
R26022	3.00	4702-0221-003	RES, 5, 1/4W, 220 OHM
R26023	1.00	4702-0474-003	RES, 5, 1/4W, 470K OHM
R26024	3.00	4702-0472-003	RES, 5, 1/4W, 4.7K OHM
R26025	1.00	4702-0102-003	RES, 5, 1/4W, 1.0K OHM
R26026	1.00	4702-0122-003	RES, 5, 1/4W, 1.2K OHM
R26027	3.00	4753-0201-002	POT, 200 OHM, 62-2-1-201
R26028	1.00	4753-0102-002	POT, 1K OHM, 62-2-1-102
R26029	1.00	4702-0101-003	RES, 5, 1/4W, 100 OHM
R26030	-.--	4702-0471-003	RES, 5, 1/4W, 470 OHM
R26031	-.--	4702-0221-003	RES, 5, 1/4W, 220 OHM
R26032	-.--	4702-0471-003	RES, 5, 1/4W, 470 OHM
R26033	1.00	4702-0331-003	RES, 5, 1/4W, 330 OHM
R26034	-.--	4753-0201-002	POT, 200 OHM, 62-2-1-201
R26035	-.--	4702-0221-003	RES, 5, 1/4W, 220 OHM
R26036	-.--	4753-0201-002	POT, 200 OHM, 62-2-1-201
R26037	1.00	4702-0222-003	RES, 5, 1/4W, 2.2K OHM
R26038	-.--	4702-0472-003	RES, 5, 1/4W, 4.7K OHM
R26039	-.--	4702-0472-003	RES, 5, 1/4W, 4.7K OHM
R26040	1.00	4702-0681-003	RES, 5, 1/4W, 680 OHM
R26041	1.00	4701-0680-003	RES, 5, 1/8W, 68 OHM
R26043	1.00	4702-0271-003	RES, 5, 1/4W, 270 OHM
R26044	1.00	4701-0331-003	RES, 5, 1/8W, 330 OHM
R26045	1.00	4701-0683-003	RES, 5, 1/8W, 68K OHM
R26046	1.00	4701-0122-003	RES, 5, 1/8W, 1.2K OHM
TP23006	-.--	2200-2094-300	CONN,M SMB,PC MTG,RTANG,NO THD
U26001	1.00	3224-0009-000	IC,2931,ADJ 3V-24V REGULATOR
U26002	1.00	3131-0000-032	IC,74LS02,QUAD 2-INPUT NOR
U26003	1.00	3211-3645-001	IC,74LS640-1,OCTAL BUS XCEIVER
U26004	1.00	3131-0000-024	IC,74LS123,DUAL MULTIVIBRATOR
U26005	1.00	3221-0001-100	IC,356,L NOISE W/B JFET OP AMP

DATE	REV	CHANGE	APVD
4/15/88	B	DESIGN RELEASE	CKM
7/29/88	B	PROD REL PER ECN 11475 JR	SLR
5/19/89	C	INC ECN #12309 SCP	DC





STANDARDS:

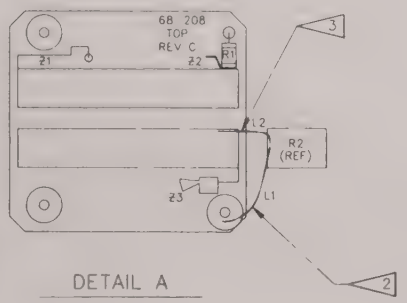
1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES, THIS DWG CARRIES 29000 (i.e., R1 IS R29001).
2. REF. SCHEM. 7005-6840-600.

	IFR SYSTEMS INC, 10200 West York St., Wichita, Kansas 67215
DRAWN WAW 3/31/88	TITLE: PCB ASSEMBLY VIDEO FILTER
CHECKED ROCK CRAWFORD 4/15/88	
APPROVED P.R. HARRIS 4/15/88	SIZE C; DWG. NO. 7010-6830-900; REV C
	SCALE: 3:1; DO NOT SCALE; FSCM 51190; SHEET 1 OF 1

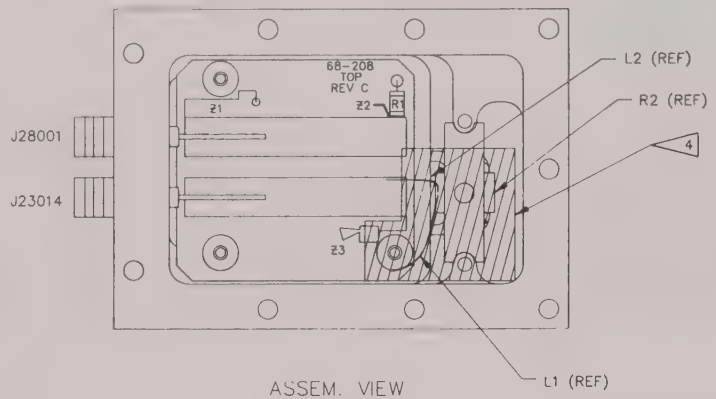
ASSY NO.	REVISION	DESCRIPTION
7010-6830-900	C	PCB, ASSY,VIDEO FILTER

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-900	PC BD, VIDEO FILTER
*U12002	.00	3271-6701-210	IC,27512, I1402 CPU V2.10
C29001	2.00	1622-0560-001	CAP,PF 56 50V,CHIP
C29002	1.00	1622-0101-001	CAP,PF 100, 50V,CHIP
C29003	-.--	1622-0560-001	CAP,PF 56 50V,CHIP
C29004	2.00	1622-0100-001	CAP,PF 10 50V CHIP
C29005	-.--	1622-0100-001	CAP,PF 10 50V CHIP
L29001	2.00	1811-0221-001	IND., .22uh, 1008CS-221, SM
L29002	-.--	1811-0221-001	IND., .22uh, 1008CS-221, SM

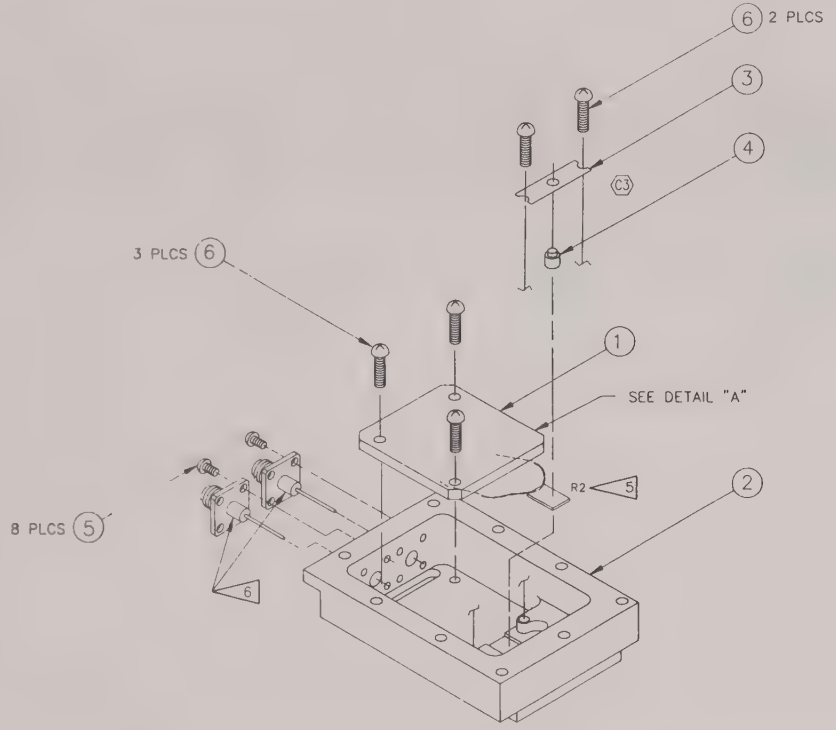
DATE	REV	CHANGE	APVD
4/6/88	C	DESIGN RELEASE	CJKM
4/13/88	C-1	REF #651	CJKM
7/28/88	C-1	PROD REL PER ECN 11475 JR	BP
10/31/88	C-2	INC RC 11787 JR	BP
3/29/89	C-3	INC ECN 12268 JR	BP



DETAIL A
SCALE: 2:1



ASSEM. VIEW



NOTES:

1. THIS ASS'Y CARRIERS A REF DES SERIES OF 28000 (i.e.,R1 IS R28001).

2 L1 IS 26 GA. BUSSWIRE 1.5 LONG. SOLDER ONE END TO R2 LEAVE OTHER END LOOSE. (SEE DETAIL "A")

3 L2 IS 22 GA. BUSSWIRE APPROX. 1 INCH LONG (OR TRIM TO FIT). SOLDER ONE END TO R2 AND OTHER END TO GROUND. (SEE DETAIL "A")

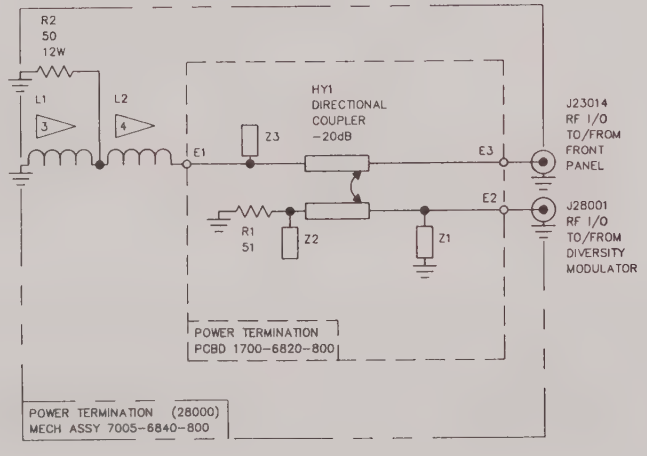
4 THIS AREA TO HAVE CONFORMAL COATING APPLIED. DPN (1050-0000-235). PUT ON IN FINAL TEST.

C3

6 TRIM TEFLON FLUSH WITH PC BOARD.

	IFR SYSTEMS INC 10200 West York St., Wichita, Kansas 67215	
DRAWN BURNETT 4-6-88	TITLE MECH. ASS'Y POWER TERMINATION	
CHECKED R CRAWFORD 4/14/88		
APPROVED PR HARRIS 4/14/88	SIZE C	DWG. NO. 7005-6840-800 REV C-3
	SCALE 1:1	DO NOT SCALE FSCM 51190 SHEET 1 OF 2

DATE	REV	CHANGE	APVD
		SEE SHEET ONE	



STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES SERIES 28000
2. ALL RESISTORS ARE 1/4 W, 5 % TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.

NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED.
E3 HY1 J23014 R2 Z3 L2 J28001

2. REFERENCE NUMBERS NOT USED.

3. L1 IS 26 GA WIRE.

4. L2 IS 22 GA WIRE.

DRAWN D HAYNES DATE 3-30-88	IFR SYSTEMS INC. 10200 West York St., Wichita, Kansas 67215	
CHECKED J BISHOP DATE 4-4-88	TITLE CIRCUIT SCHEMATIC POWER TERMINATION	
APPROVED L GREENBANK DATE 4-4-88	SIZE C	DWG. NO. 7005 6840 800 REV C3
	SCALE	DO NOT SCALE FSCM 51190 SHEET 2 OF 2

ASSY NO.	REVISION	DESCRIPTION
7005-6840-800	C4	MECH ASSY,POWER TERMINATION

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-800	PC BD,POWER TERMINATION
*02	1.00	1415-6850-700	ENCL, BLK,POWER TERMINATION
*03	1.00	2106-6851-300	SPRING,RETAINTER
*04	1.00	2800-6851-200	BUTTON,RETAINTER
*05	8.00	2801-0156-006	SCREW,2-56 X 5/32 PPHM
*06	5.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
J23014	2.00	2123-0000-028	CONN RF SUB AEP 60-9904-090
J28001	-.--	2123-0000-028	CONN RF SUB AEP 60-9904-090
L28001	.00	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
L28002	.00	1050-0000-073	WIRE,BUS,TINNED COPPER,22GA
R28001	1.00	4721-0510-003	RES, 5, 1/4W, 51 OHM CHIP
R28002	1.00	5650-0000-040	TERMN,50 OHM 12W CHIP .040THKN

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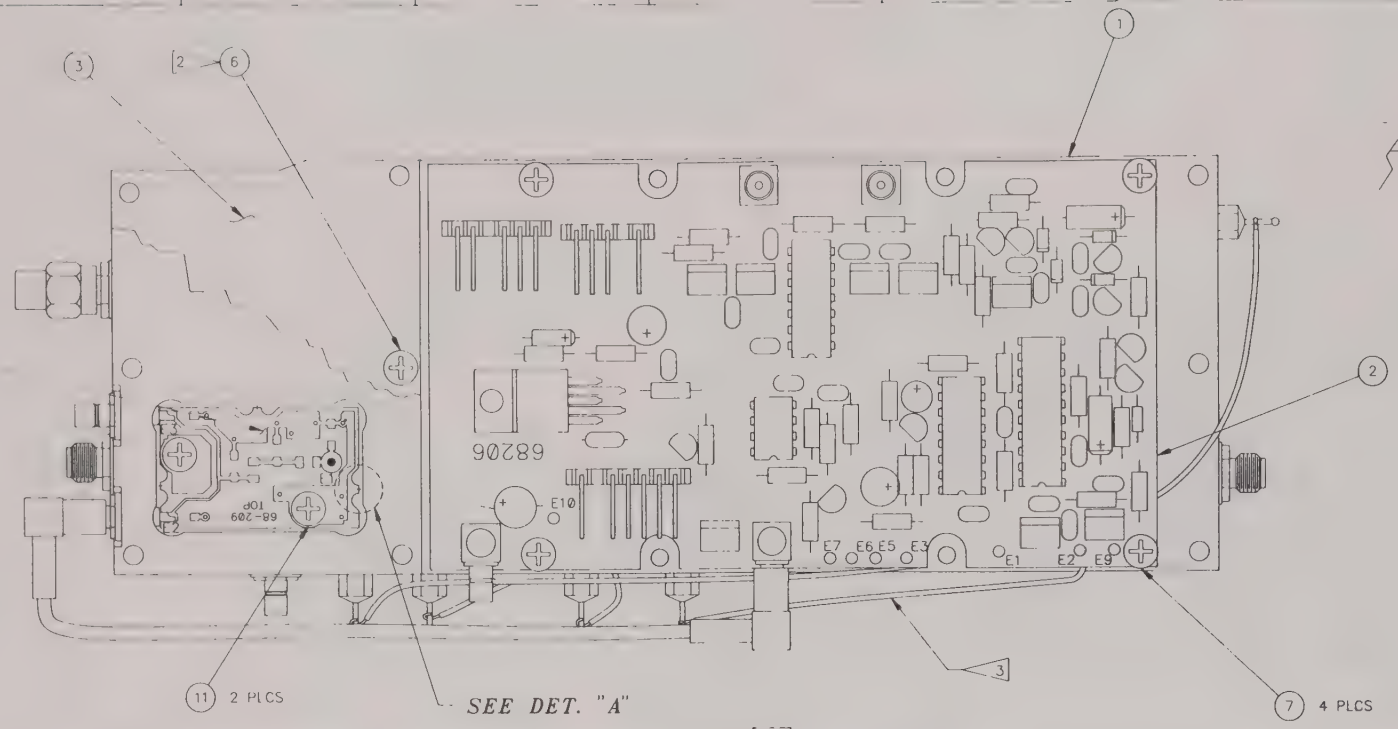
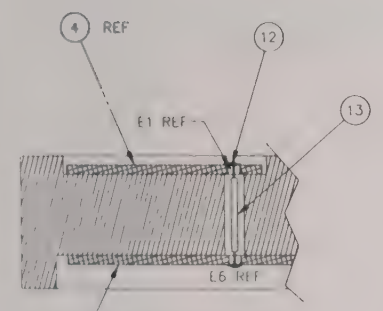
WIRE RUNNING LIST

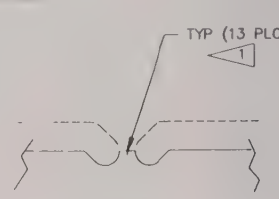
FROM	TO	COLOR	LENGTH	AWG
E7	FL31014	WHT/BRN	3.5	26
E5	FL31008	WHT/RED	3.5	26
E10				
E6	FL31010	YEL	4.0	26
E1				
E2	FL31009	RED	3.3	26
E4				
E3	FL31007	WHT/VIO	1.5	26
E8	E75006	——	A/R	22

DATE	REV	CHANGE	APVD
4/88	A	DESIGN RELEASE #677	CJKM
5/5/88	B	REF #680	CJKM
5/13/88	C	REF # 686	CJKM
7/28/88	C	PROD REL PER ECN 11475 JR	BP
11/1/88	D	INC ECN 11736 JR	BP
1/12/89	D-1	INC ECN 11858 PL	BP

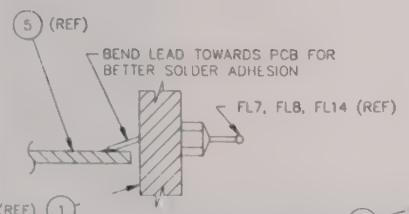




DETAIL - B



DETAIL A
SCALE: 4:1



DETAIL "C"

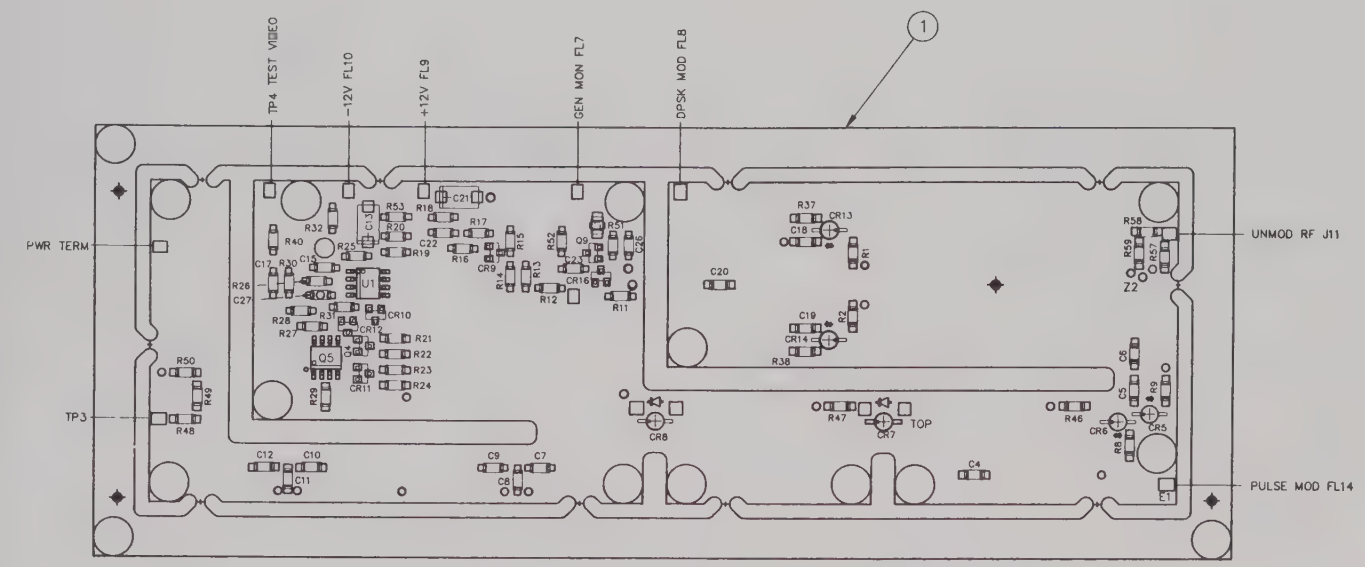
NOTES:

1. CUT BORDER AWAY FROM PC BOARD AT LOCATIONS SHOWN.
2. THIS IS THE ONLY SCREW USED IN COVER (ITEM 3) AT THIS STAGE OF ASS'Y.
3. ATTACH ALL WIRES NECESSARY TO (ITEM 2) PRIOR TO ATTACHING (ITEM 2) TO (ITEM 1).
4. THIS PCB ASSY INCLUDES STATIC SENSITIVE DEVICES AND SHOULD BE HANDLED IN A STATIC CONTROLLED ENVIROMENT AT ALL TIMES.
5. DO NOT PUT AT31001 IN DEGREASER. INSTALL LAST.

IFR SYSTEMS INC

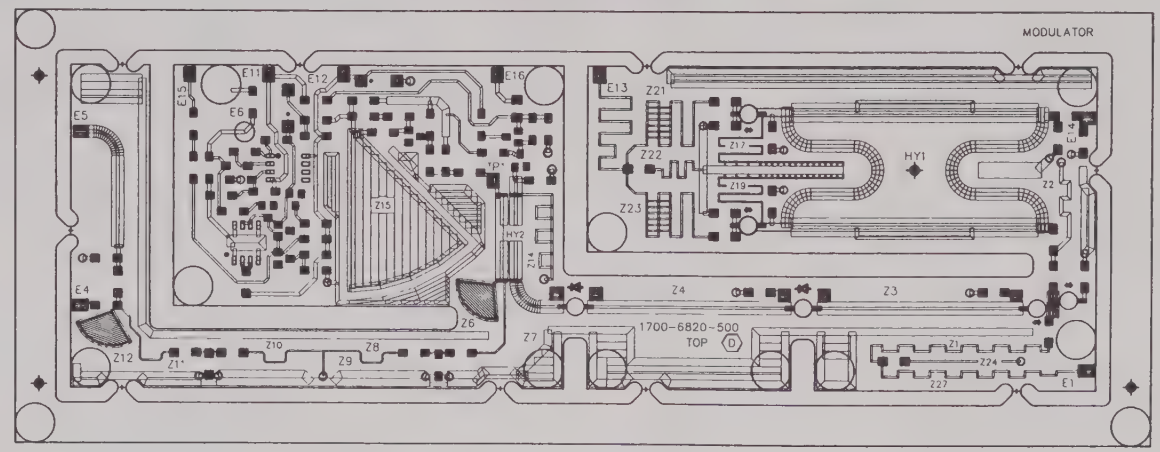
DRAWN BURNETT 5/5/88	TITLE	MECH ASS'Y MODULATOR
CHECKED R. CRAWFORD 5/23/88		
APPROVED P.R. HARRIS 5/23/88	SIZE D	DWG NO. 7005-6840-600 REV D-1
	SCALE 2:1	DO NOT SCALE FROM 51198 SHEET 1 OF 3

DATE	REV	CHANGE	APVD
4/15/88	C	DESIGN RELEASE REF #653	
4/20/88	C-1	REF #661	
7/29/88	C-1	PROD REL PER ECN 11475 JR	LP
11/1/88	C-2	INC ECN 11736 JR	LP
12/16/88	D	INC ECN 11858 JR	EP
6/29/89	E	INC ECN 12310 SCP	SP



TOP SIDE

SHOWING COMPONENTS AND PADS



TOP SIDE

SHOWING PADS AND TRACES

NOTES:

1. THIS PC BD ASSY CARRIES A REF DES SERIES OF 25000 (i.e,R1 IS R25001).
2. REF. SCHEM. 7005-6840-600

R. CRAWFORD 4/25/88

P.R. HARRIS 4/25/88

TOLERANCES: (UNLESS OTHERWISE SPECIFIED) ALL DIMENSIONS APPLY AFTER FINISH DECIMALS: .XXX= ± .010 ANGLES: ±1/2DEG	SURFACE FINISH: 125 REMOVE ALL BURRS .XXXX= ± .005	MATERIAL / FINISH
	IFR SYSTEMS INC 10300 West York St., Wichita, Kansas 67215	
DRAWN BURNETT 4/15/88	TITLE PCB ASS'Y MODULATOR	
CHECKED R CRAWFORD 4/25/88		
APPROVED PR HARRIS 4/2588	SIZE D / DWG. NO. 7010-6830-500 / REV E	
	SCALE 2:1 DO NOT SCALE FSCM 51190 SHEET 1 OF 1	

ASSY NO.	REVISION	DESCRIPTION
7005-6840-600	D1	MECH ASSY,MODULATOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	.30	6003-0000-003	WIRE,HOOK,TFE,26GA, 7S,RED
	.35	6003-0000-005	WIRE,HOOK,TFE,26GA, 7S,YELLOW
	.30	6003-0000-012	WIRE,HOOK,TFE,26GA, 7S,WHT/BRN
	.30	6003-0000-013	WIRE,HOOK,TFE,26GA, 7S,WHT/RED
	.13	6003-0000-018	WIRE,HOOK,TFE,26GA, 7S,WHT/VIO
*01	1.00	1415-6850-500	ENCL,BLK,MODULATOR,DIVERSITY
*02	1.00	7010-6830-600	PCB ASSY, DIVERSITY I/O
*03	1.00	1414-6850-900	COVER, VIDEO FILTER
*04	1.00	7010-6830-900	PCB, ASSY,VIDEO FILTER
*05	1.00	7010-6830-500	PCB ASSY,MODULATOR
*06	13.00	2803-0188-006	SCREW,4-40 X 3/16 PPHM
*07	4.00	2803-0250-006	SCREW,4-40 X 1/4 PPHM
*08	3.00	2840-7600-208	WASHER,ALUM,.380D,.250ID,.020T
*09	3.00	2840-7600-229	WASHER,ALUM,.310D,.188ID,.038T
*10	1.00	6050-0040-600	COAX ASSY,316,R F SMB/R F SMB
*11	2.00	2803-0125-006	SCREW,4-40 X 1/8 PPHM
*12	.00	1050-0000-073	WIRE,BUS,TINNED COPPER,22GA
*13	.07	6011-0027-001	TUBING,TF,22 AWG,NATURAL,TW
AT31001	1.00	5650-0010-200	TERMINATION,M SMA,50 OHM,1.15
FL31007	3.00	1526-0000-006	CAP,PF 100, 200V,FEEDTHRU
FL31008	-.--	1526-0000-006	CAP,PF 100, 200V,FEEDTHRU
FL31009	2.00	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL31010	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL31014	-.--	1526-0000-006	CAP,PF 100, 200V,FEEDTHRU
J23016	3.00	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
J31011	3.00	2123-0000-030	CONN,FSMA,W/TERM,STR BULKHEAD*
J31012	-.--	2123-0000-030	CONN,FSMA,W/TERM,STR BULKHEAD*
J31015	-.--	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
TP23004	-.--	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
TP31003	-.--	2123-0000-030	CONN,FSMA,W/TERM,STR BULKHEAD*

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ASSY NO.	REVISION	DESCRIPTION
7010-6830-500	E	PCB ASSY,MODULATOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-500	PC BD MODULATOR
C25001	42.00	0002-0000-000	*** REF DESIG NOT USED ***
C25002	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25004	8.00	1622-0030-001	CAP,PF 3.0 50V CHIP
C25005	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25006	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25007	3.00	1622-0050-001	CAP,PF 5.0 50V CHIP
C25008	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25009	2.00	1622-0159-001	CAP,PF 1.5 50V CHIP
C25010	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C25011	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25012	-.--	1622-0050-001	CAP,PF 5.0 50V CHIP
C25013	2.00	1621-0106-016	CAP, UF 10 16V, TANT SMD
C25014	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25015	3.00	1622-0104-001	CAP,UF .1 50V CHIP
C25016	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25017	-.--	1622-0104-001	CAP,UF .1 50V CHIP
C25018	2.00	1622-0399-001	CAP,PF 3.9 100V CHIP
C25019	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C25020	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25021	-.--	1621-0106-016	CAP, UF 10 16V, TANT SMD
C25022	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25023	-.--	1622-0050-001	CAP,PF 5.0 50V CHIP
C25024	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25025	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C25026	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C25027	-.--	1622-0104-001	CAP,UF .1 50V CHIP
CR25001	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR25002	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR25003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR25004	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR25005	6.00	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25006	-.--	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25007	-.--	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25008	-.--	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25009	3.00	4816-0000-005	DIODE, HSMS-2800, SOT-23
CR25010	2.00	4818-0000-025	DIODE,1S2836,H/S SWITCHING
CR25011	-.--	4816-0000-005	DIODE, HSMS-2800, SOT-23
CR25012	-.--	4818-0000-025	DIODE,1S2836,H/S SWITCHING
CR25013	-.--	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25014	-.--	4828-0000-011	DIODE,AP700D-850,PIN SMD
CR25015	-.--	0002-0000-000	*** REF DESIG NOT USED ***
CR25016	-.--	4816-0000-005	DIODE, HSMS-2800, SOT-23
HY25001	26.00	0003-0000-000	***** FOR REFERENCE ONLY *****
HY25002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
L25001	1.00	1811-0102-002	IND,SM 1.0 UH
Q25001	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Q25002	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Q25003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Q25004	1.00	4809-0000-020	TRANS, 3906, PNP SMD
Q25005	1.00	4809-0000-017	TRANS,DRIVER 1GHz FT,NPN,SO-8
Q25006	-.--	0002-0000-000	*** REF DESIG NOT USED ***

ASSY NO.	REVISION	DESCRIPTION
7010-6830-500	E	PCB ASSY,MODULATOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
Q25007	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Q25008	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Q25009	1.00	4809-0000-021	TRANS, 3904, NPN SMD
R25001	2.00	4719-0102-002	RES, 5, 1/8W, 1.0K OHM,CHIP
R25002	-.--	4719-0102-002	RES, 5, 1/8W, 1.0K OHM,CHIP
R25003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25004	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25005	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25006	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25007	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25008	4.00	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R25009	2.00	4719-0390-002	RES, 5, 1/8W 39 OHM,CHIP
R25010	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25011	4.00	4719-0560-002	RES, 5, 1/8W, 56 OHM,CHIP
R25012	2.00	4719-0689-003	RES,10, 1/8W 6.8 OHM,CHIP
R25013	3.00	4719-0221-002	RES, 5, 1/8W 220 OHM,CHIP
R25014	2.00	4719-0180-002	RES, 5,1/8W 18 OHM CHIP
R25015	-.--	4719-0390-002	RES, 5, 1/8W 39 OHM,CHIP
R25016	-.--	4719-0560-002	RES, 5, 1/8W, 56 OHM,CHIP
R25017	2.00	4719-0510-002	RES, 5, 1/8W, 51 OHM CHIP
R25018	2.00	4719-0152-002	RES, 5, 1/8W, 1.5K OHM CHIP
R25019	2.00	4719-0223-002	RES. 5, 1/8W, 22K OHM CHIP
R25020	1.00	4719-0271-002	RES, 5, 1/8W, 270 OHM, CHIP *
R25021	1.00	4719-0681-002	RES, 5, 1/8W, 680 OHM,CHIP
R25022	1.00	4719-0151-002	RES, 5, 1/8W 150 OHM,CHIP
R25023	1.00	4719-0751-002	RES, 5, 1/8W, 750 OHM, CHIP
R25024	1.00	4719-0123-002	RES, 5, 1/8W, 12K OHM, CHIP
R25025	-.--	4719-0223-002	RES. 5, 1/8W, 22K OHM CHIP
R25026	3.00	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R25027	-.--	4719-0221-002	RES, 5, 1/8W 220 OHM,CHIP
R25028	-.--	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R25029	1.00	4719-0100-002	RES, 5, 1/8W 10 OHM CHIP
R25030	1.00	4719-0220-002	RES, 5, 1/8W 22 OHM,CHIP
R25031	1.00	4719-0105-002	RES 5, 1/8W, 1M OHM, CHIP
R25032	-.--	4719-0510-002	RES, 5, 1/8W, 51 OHM CHIP
R25033	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25034	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25035	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25036	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25037	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R25038	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R25039	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25040	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R25041	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25042	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25043	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25044	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25045	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25046	1.00	4719-0472-002	RES, 1/8W, 4.7K OHM, CHIP *
R25047	-.--	4719-0152-002	RES, 5, 1/8W, 1.5K OHM CHIP
R25048	-.--	4719-0689-003	RES,10, 1/8W 6.8 OHM,CHIP
R25049	-.--	4719-0221-002	RES, 5, 1/8W 220 OHM,CHIP
R25050	-.--	4719-0560-002	RES, 5, 1/8W, 56 OHM,CHIP

ASSY NO.	REVISION	DESCRIPTION
7010-6830-500	E	PCB ASSY,MODULATOR

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R25051	1.00	4719-0222-002	RES, 5, 1/8W 2.2K OHM,CHIP
R25052	-.--	4719-0560-002	RES, 5, 1/8W, 56 OHM,CHIP
R25053	-.--	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R25054	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25055	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25056	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R25057	2.00	4719-0272-002	RES, 5, 1/8W, 2.7K OHM, CHIP
R25058	-.--	4719-0180-002	RES, 5,1/8W 18 OHM CHIP
R25059	-.--	4719-0272-002	RES, 5, 1/8W, 2.7K OHM, CHIP
TP25001	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
U25001	1.00	3221-0001-001	IC,353D,DUAL BIFET OP AMP SMD
Z25001	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25005	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z25006	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25007	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25008	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25010	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25011	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25012	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25013	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z25014	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25015	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25016	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z25017	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25018	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z25019	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25020	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z25021	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25022	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25023	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25024	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25025	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25026	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25027	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z25028	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****

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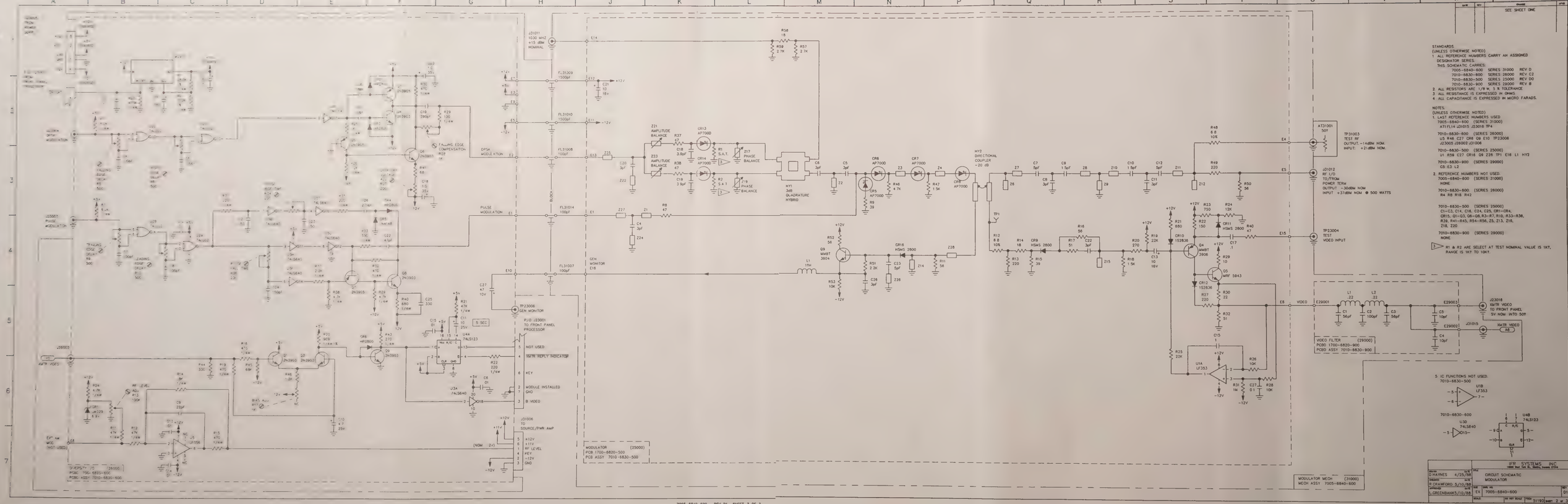
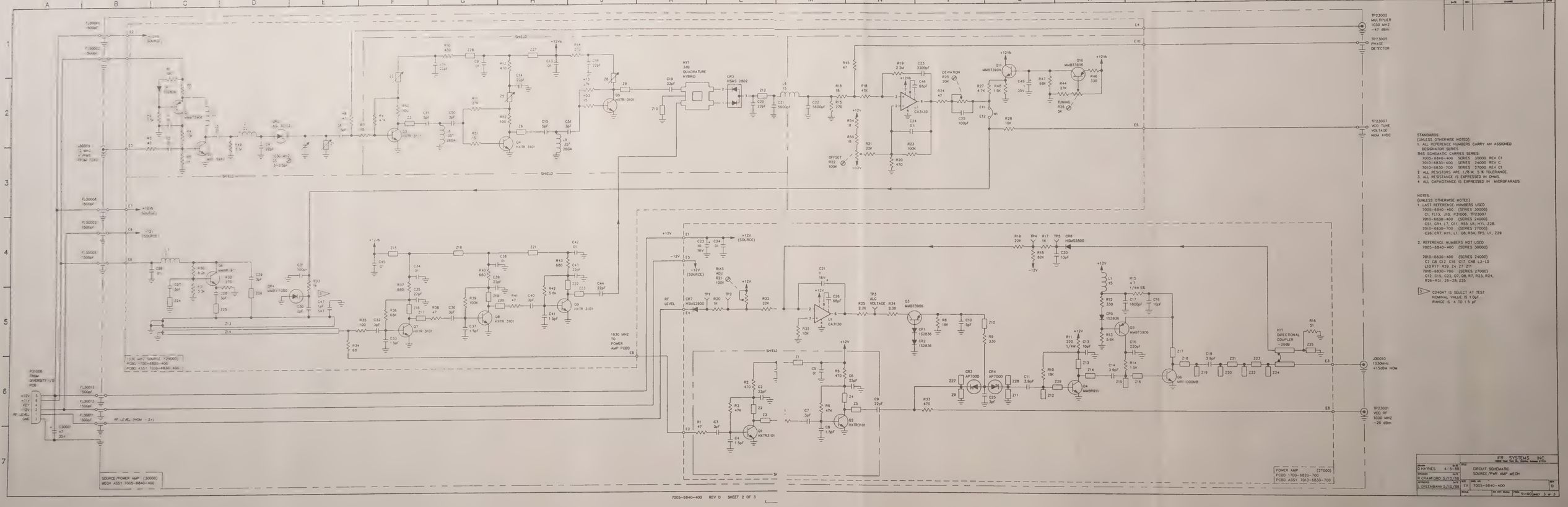
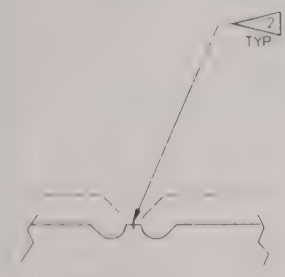

SEE SHEET ONE
STANDARDS.
(UNLESS OTHERWISE NOTED)
1 ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES.
THIS SCHEMATIC CARRIES:
7005-6840-600 SERIES 31000 REV D
7010-6830-600 SERIES 26000 REV C2
7010-6830-500 SERIES 25000 REV D2
7010-6830-900 SERIES 29000 REV B
2 ALL RESISTORS ARE 1/8 W, 5 % TOLERANCE
3 ALL RESISTANCE IS EXPRESSED IN OHMS
4 ALL CAPACITANCE IS EXPRESSED IN MICRO FARADS.
NOTES.
(UNLESS OTHERWISE NOTED)
1 LAST REFERENCE NUMBERS USED
7005-6840-600 (SERIES 31000)
ATI FL14 J31015 J23016 TP4
7010-6830-500 (SERIES 26000)
U3 R48 C27 CR8 Q9 E10 TP23006
J23003 J26002 J31006
7010-6830-500 (SERIES 25000)
U1 R59 C27 CR16 Q9 Z26 TP1 E16 L1 HY2
7010-6830-900 (SERIES 29000)
C5 E3 L2
2 REFERENCE NUMBERS NOT USED.
7005-6840-600 (SERIES 31000)
NONE
7010-6830-500 (SERIES 26000)
R4 R8 R18 R42
7010-6830-500 (SERIES 25000)
C1-C3, C14, C16, C24, C25, CR1-CR4, CR15, Q1-Q3, Q6-Q8, R3-R7, R10, R33-R38, R39, R41-R43, R54-R56, Z5, Z13, Z18, Z18, Z20
7010-6830-900 (SERIES 29000)
NONE
3 R1 & R2 ARE SELECT AT TEST NOMINAL VALUE IS 1KT, RANGE IS 1KT TO 10KT.
J23012 RF I/O TO/FROM
TP31003 TEST RF OUTPUT: -14dBM NOM. INPUT: +21dBM NOM.
TP23004 TEST VIDEO INPUT
J23016 XMTR VIDEO TO FRONT PANEL 5V NOM. INTO 50?
J31015 XMTR VIDEO A8
VIDEO FILTER (29000) PCB0 1700-6820-900 PCB0 ASSY 7010-6830-900
5 IC FUNCTIONS NOT USED. 7010-6830-500
7010-6830-600
MODULATOR (25000) PCB 1700-6820-500 PCB ASSY 7010-6830-500
MODULATOR MECH (31000) MECH ASSY 7005-6840-600
IFR SYSTEMS, INC.
CIRCUIT SCHEMATIC MODULATOR
D HAYNES 4/25/88
B CRAWFORD 5/10/88
L GREENBANKS 7/10/88
7005-6840-600 01
SIZE A1 SCALE NOT TO SCALE SHEET 2 OF 3
7005-6840-600 REV 01 SHEET 3 OF 3

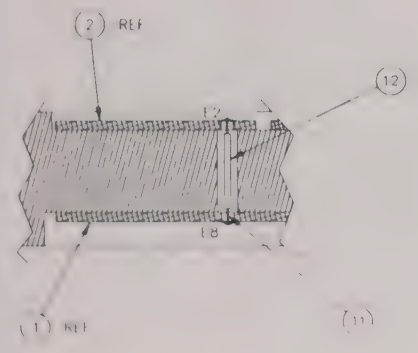

STANDARDS:
(UNLESS OTHERWISE NOTED)
1. ALL REFERENCE NUMBERS CARRY AN ASSIGNED DESIGNATOR SERIES
THIS SCHEMATIC CARRIES SERIES:
7005-6840-400 SERIES 30000 REV C1
7010-6830-400 SERIES 24000 REV C
7010-6830-700 SERIES 27000 REV C1
2. ALL RESISTORS ARE 1/8 W. 5 % TOLERANCE.
3. ALL RESISTANCE IS EXPRESSED IN OHMS.
4. ALL CAPACITANCE IS EXPRESSED IN MICROFARADS
NOTES:
(UNLESS OTHERWISE NOTED)
1. LAST REFERENCE NUMBERS USED
7005-6840-400 (SERIES 30000)
C1, FL13, J10, P31006, TP23007
7010-6830-400 (SERIES 24000)
C51, CR4, L7, Q11, R55 (J1, H1), Z28.
7010-6830-700 (SERIES 27000)
C26, CR7, H1Y1, L1, Q8, R34, TP5, U1, Z29
2. REFERENCE NUMBERS NOT USED
7005-6840-400 (SERIES 30000)
7010-6830-400 (SERIES 24000)
C7 C8 C12 C16 C17 C48 L3-L5
L10 R17 R29 Z4 Z7 Z11
7010-6830-700 (SERIES 27000)
C12, C15, C22, Q7, Q8, R7, R23, R24, R26-R31, Z6-Z8, Z25
C24047 IS SELECT AT TEST NOMINAL VALUE IS 1 0pF RANGE IS 4 TO 1 5 pF
TP23002 MULTIPLIER 1030 MHZ -47 dBm
TP23005 PHASE DETECTOR
TP23007 VCO TUNE VOLTAGE NOM +10DC
J30010 1030MHz +15dBM NOM
TP23001 VCO RF 1030 MHZ -20 dBm
P31006 FROM DIVERSITY I/O PCB
+12V
+5 V
XCV
-12V
RF LEVEL
GND
RF LEVEL (NOM - 2 V)
+12V SOURCE
-12V SOURCE
BIAS ADJ R21 100K
1030 MHZ TO POWER AMP PCBD
1030 MHZ SOURCE (24000)
PCBD 7010-6830-400
PCBD ASSY 7010-6830-400
SOURCE/POWER AMP (30000)
MECH ASSY 7005-6840-400
POWER AMP (27000)
PCBD 7010-6830-700
PCBD ASSY 7010-6830-700
SHIELD
HY1 3dB QUADRATURE HYBRID
DEVIATION R25 20K
OFFSET R22 100K
TUNING R29 5K
BIAS ADJ R21 100K
DIRECTIONAL COUPLER
CA3130
MMBT3906
MMBT3904
MMBR911
MRF1000MB
HSMS2802
HSMS2800
HXTR-3101
AP700D
7005-6840-400 REV D SHEET 2 OF 3
JFR SYSTEMS INC
CIRCUIT SCHEMATIC
SOURCE/PWR AMP MECH
7005-6840-400
REV D
SIZE B
SHEET 3 of 3

WIRE RUNNING LIST					
FROM	TO	COLOR	LENGTH	AWG	NOTES
FL30002	FL30013	YEL	4.75	26	-12
FL30006	FL30012	RED	4.50	26	+12
FL30012	FL30001	RED	2.00	26	+12
FL30005	FL30003	BRN	11.20	26	11
FL30001	GL1		47uf35v TANT		
FL30008	E27002		BUSS WIRE	22	
FL30001	P31006-5	RED	6.00	26	
FL30011	-1	WHT/YEL	6.50	26	
FL30013	-2	YEL	6.75	26	
GL1	-3	BLK	5.75	26	
FL30003	-6	BRN	10.25	26	
	KEY -4				

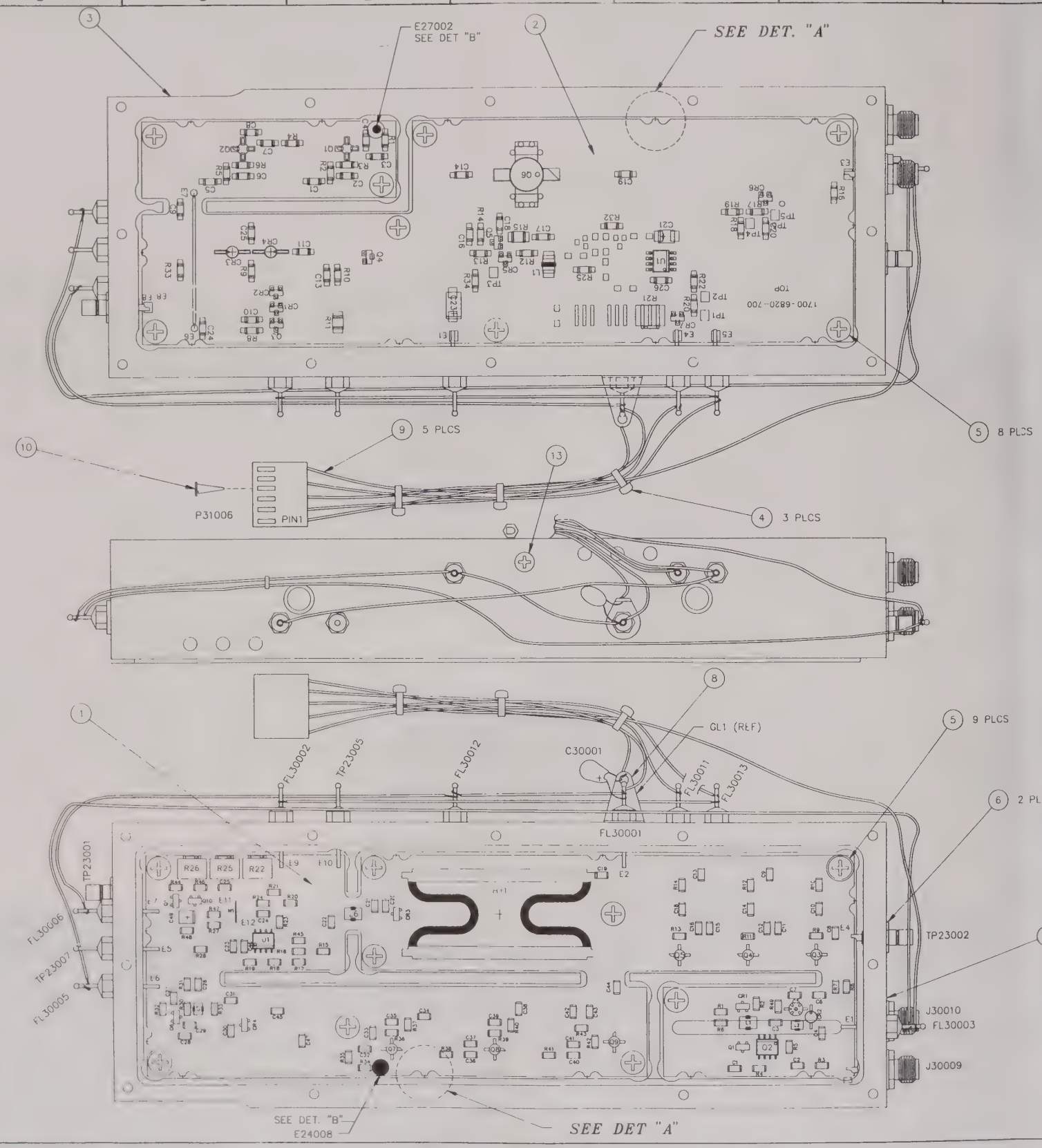
DATE	REV	CHANGE	APVD
	A	DESIGN RELEASE	CJKM
3/28/88	A-1	REF # 641	CJKM
5/4/88	B	REF # 678	CJKM
5/16/88	C	REF #682/#688	CJKM
7/28/88	C	PROD REL PER ECN 11475 JR	SLR
2/10/89	C1	INC ECN 11857 PL	BP
5/9/89	D	INC ECN 12232 JR	



DETAIL - A
SCALE: 4:1



DETAIL B

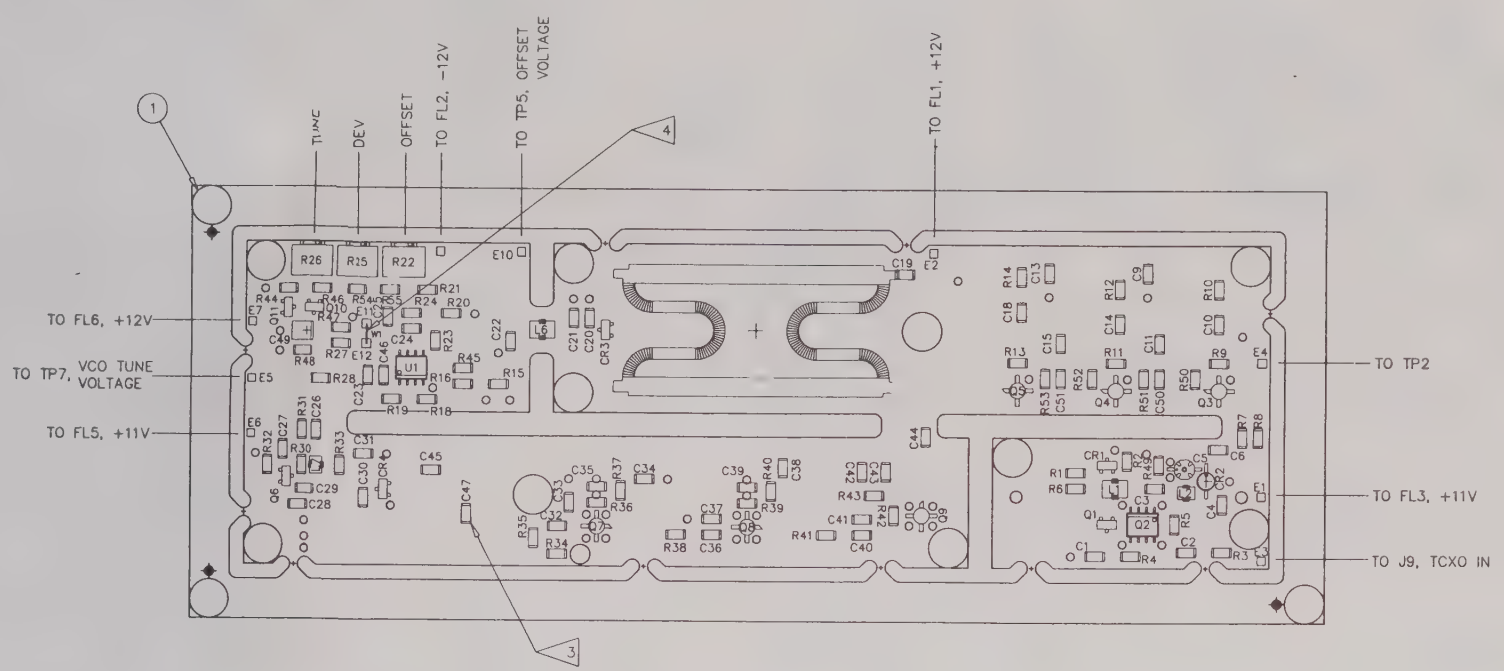


NOTES:

1. THIS MECH. ASSY CARRIES A REF DES SERIES OF 30000 (i.e.,C1 IS C30001).
2. CUT BORDER AWAY FROM PC BOARD AT LOCATIONS SHOWN.

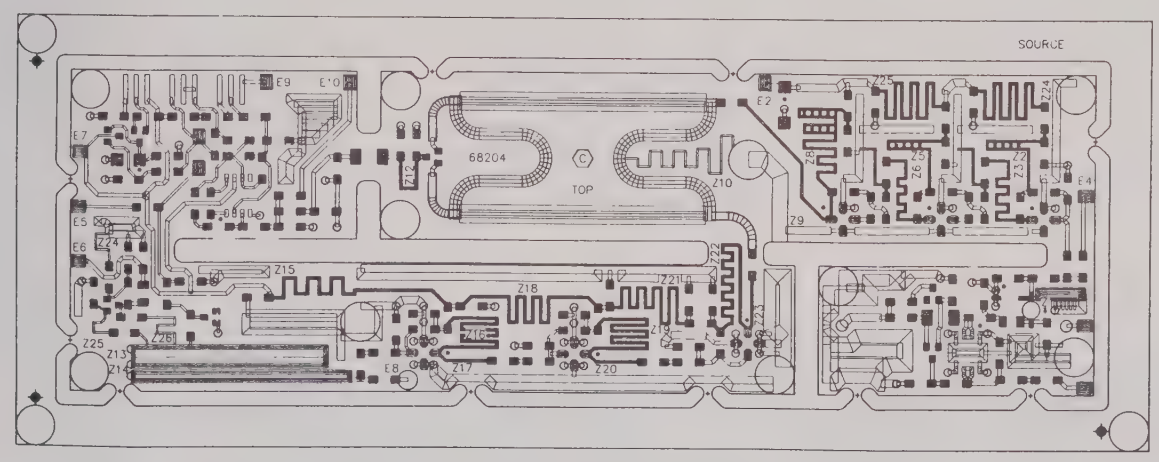
		IFR SYSTEMS, INC. 10300 West Forty St. Wichita, Kansas 67213
DRAWN BURNETT 5/13/88	TITLE	MECH ASS'Y SOURCE/PWR AMP
CHECKED R CRAWFORD 5/19/88		
APPROVED P R HARRIS 5/19/88	SIZE D	DWG. NO. 7005-6840-400 REV D
	SCALE 2:1	DO NOT SCALE FSCM 51190 SHEET 1 OF 1

DATE	REV	CHANGE	APVD
1/10/89	C	REDRAWN W/CHANGES PER ECN 11857 JR	SLR
3/9/89	C-1	INC RC 12164 JS	BP
6/29/89	D	INC ECN #12308 SCP	BP
7/25/89	D1	INC ECN 12547 JR	BP
8/4/89	D2	INC ECN 12610 SCP	BP



TOP SIDE

(SHOWING PADS AND COMPONENTS)



TOP SIDE

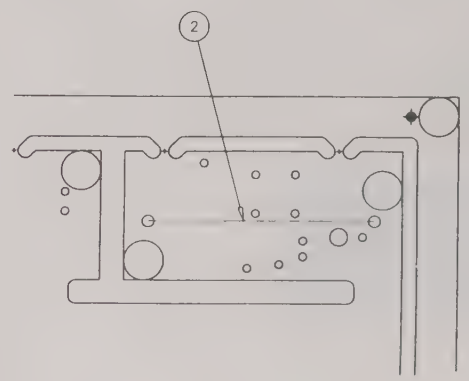
(SHOWING PADS AND TRACES)

NOTES:

1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES, THIS DWG CARRIES SERIES 24000 (i.e. R1 IS R24001).
2. THIS PCB ASSY INCLUDES STATIC SENSITIVE DEVICES AND SHOULD BE HANDLED IN A STATIC CONTROLLED ENVIRONMENT AT ALL TIMES.

3 > C47 IS S.A.T. – NOMINAL VALUE: 1.0pF
VALUE RANGE: 0.4 TO 1.5pF
TO BE INSTALLED IN FINAL TEST.

4 > TO BE INSTALLED IN FINAL TEST.



BOTTOM SIDE

(SHOWING PLACEMENT OF JUMPER WIRE)

DRAWN DATE: RIDDLE 1-10-89	IFR SYSTEMS INC 10000 West Toni St., Wichita, Kansas 67213
CHECKED DATE: R. CRAWFORD 1-16-89	TITLE: PCB ASSY 1030 MHz SOURCE
APPROVED DATE: P.R HARRIS 1 16-89	SIZE: D; DWG NO.: 7010-6830-400; REV: D2
	SCALE: 2 1; DO NOT SCALE; FSCM 51190; SHEET 1 OF 1

ASSY NO.	REVISION	DESCRIPTION
7005-6840-400	E	MECH ASSY,SOURCE/PWR AMP

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
	.80	6003-0000-001	WIRE,HOOK,TFE,26GA, 7S,BLACK
	1.80	6003-0000-002	WIRE,HOOK,TFE,26GA, 7S,BROWN
	1.20	6003-0000-003	WIRE,HOOK,TFE,26GA, 7S,RED
	.80	6003-0000-005	WIRE,HOOK,TFE,26GA, 7S,YELLOW
	.80	6003-0000-015	WIRE,HOOK,TFE,26GA, 7S,WHT/YEL
*01	1.00	7010-6830-400	PCB ASSY, 1030MHZ SOURCE
*02	1.00	7010-6830-700	PCB ASSY,PWR AMP
*03	1.00	1415-6850-600	ENCL.BLK,SOURCE/PWR AMP DIVERS
*04	3.00	6004-6005-400	TY-RAP,4.0 LG
*05	18.00	2803-0188-006	SCREW,4-40 X 3/16 PPHM
*06	2.00	2840-7600-229	WASHER,ALUM,.310D,.188ID,.038T
*07	2.00	2840-7600-208	WASHER,ALUM,.380D,.250ID,.020T
*08	1.00	2850-0000-100	LUG,GND,#8 RTANG NON-LOCKING
*09	5.00	2114-0000-038	CONTACT,D-CANT,22-30AWG,CRIMP
*10	1.00	2127-9900-100	KEY,POLARIZIN,MOLEX 15-04-9209
*11	.00	1050-0000-073	WIRE,BUS,TINNED COPPER,22GA
*12	.10	6011-0027-001	TUBING,TF,22 AWG,NATURAL,TW
*13	2.00	2805-0250-006	SCREW 8-32X1/4 PBHMS
C30001	1.00	1508-0476-018	CAP,UF 47, 35V,TANT,RDL
FL30001	10.00	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30002	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30003	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30005	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30006	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30011	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30012	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
FL30013	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
J30009	2.00	2123-0000-030	CONN,FSMA,W/TERM,STR BULKHEAD*
J30010	-.--	2123-0000-030	CONN,FSMA,W/TERM,STR BULKHEAD*
P31006	1.00	2115-0001-006	CONN,MOLEX 22-01-2061
TP23001	2.00	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
TP23002	-.--	2123-0000-038	CONN,M SMB,W/TERM,STR BULKHEAD
TP23005	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA
TP23007	-.--	5801-0000-006	FILTER,EMI/RFI,1500PF,8-32 DIA

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ASSY NO.	REVISION	DESCRIPTION
7010-6830-400	D3	PCB ASSY, 1030MHZ SOURCE

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-400	PC BD, 1006.2MHZ SOURCE
*02	.08	6003-0000-002	WIRE,HOOK,TFE,26GA, 7S,BROWN
*03	.00	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
*C24047SAT	.00	1622-0010-001	CAP,PF 1.0 50V CHIP
C24001	10.00	1622-0103-001	CAP,UF .01 50V CHIP
C24002	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24003	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24004	10.00	1622-0220-001	CAP,PF 22 100V CHIP
C24005	1.00	1550-0101-510	CAP,VAR .5-2.5 PF, 9402-0
C24006	4.00	1622-0159-001	CAP,PF 1.5 50V CHIP
C24007	13.00	0002-0000-000	*** REF DESIG NOT USED ***
C24008	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24009	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24010	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24011	2.00	1622-0050-001	CAP,PF 5.0 50V CHIP
C24012	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24013	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24014	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24015	-.--	1622-0050-001	CAP,PF 5.0 50V CHIP
C24016	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24017	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24018	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24019	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24020	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24021	2.00	1622-0562-001	CAP,PF 5600 50V CHIP
C24022	-.--	1622-0562-001	CAP,PF 5600 50V CHIP
C24023	1.00	1622-0332-001	CAP PF 3300 50V CHIP
C24024	1.00	1622-0104-001	CAP,UF .1 50V CHIP
C24025	2.00	1622-0101-001	CAP,PF 100, 50V,CHIP
C24026	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24027	8.00	1622-0030-001	CAP,PF 3.0 50V CHIP
C24028	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24029	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24030	1.00	1622-0020-001	CAP,PF 2.0 50V CHIP
C24031	-.--	1622-0101-001	CAP,PF 100, 50V,CHIP
C24032	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24033	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C24034	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24035	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24036	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24037	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C24038	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24039	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24040	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24041	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C24042	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24043	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24044	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C24045	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C24046	1.00	1622-0680-001	CAP,PF 68, 100V,CHIP
C24047	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24048	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C24049	1.00	1507-0105-123	CAP,UF 1.0, 35V,TANT,CHIP

ASSY NO.	REVISION	DESCRIPTION
7010-6830-400	D3	PCB ASSY, 1030MHZ SOURCE

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
C24050	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C24051	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
CR24001	1.00	4818-0000-025	DIODE,1S2836,H/S SWITCHING
CR24002	1.00	4935-0101-200	DIODE,STEP RECOVERY 100NS MIN
CR24003	1.00	4816-0000-006	DIODE, HSMS 2802, SOT-23
CR24004	1.00	4826-0000-011	DIODE,MMBV105G,VARC,2.3PF/-3V
HY24001	30.00	0003-0000-000	***** FOR REFERENCE ONLY *****
L24001	1.00	1811-0223-001	IND., SM 22uh, SS-165-16
L24002	1.00	1811-0221-001	IND., .22uh, 1008CS-221, SM
L24003	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L24004	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L24005	-.--	0002-0000-000	*** REF DESIG NOT USED ***
L24006	1.00	1811-0153-001	IND.,SM, 15uh, SS-165-14
L24007	1.00	1811-0102-002	IND,SM 1.0 UH
L24008	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
L24009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Q24001	2.00	4809-0000-020	TRANS, 3906, PNP SMD
Q24002	1.00	4809-0000-017	TRANS,DRIVER 1GHz FT,NPN,SO-8
Q24003	6.00	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24004	-.--	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24005	-.--	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24006	1.00	4809-0000-015	TRANS,MMBR911,NPN H1-FREQ,SMD
Q24007	-.--	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24008	-.--	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24009	-.--	5010-0203-100	TRANS,HXTR-3101,NPN HF AMP
Q24010	-.--	4809-0000-020	TRANS, 3906, PNP SMD
Q24011	1.00	4809-0000-021	TRANS, 3904, NPN SMD
R24001	4.00	4719-0101-003	RES, 5, 1/8W, 100 OHM CHIP
R24002	2.00	4719-0152-002	RES, 5, 1/8W, 1.5K OHM CHIP
R24003	5.00	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R24004	3.00	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R24005	2.00	4719-0102-002	RES, 5, 1/8W, 1.0K OHM,CHIP
R24006	4.00	4719-0150-002	RES, 5, 1/8W, 15 OHM CHIP
R24007	-.--	4719-0150-002	RES, 5, 1/8W, 15 OHM CHIP
R24008	3.00	4719-0471-002	RES, 5, 1/8W 470 OHM,CHIP
R24009	2.00	4719-0473-002	RES 5, 1/8W, 47K OHM, CHIP
R24010	-.--	4719-0471-002	RES, 5, 1/8W 470 OHM,CHIP
R24011	-.--	4719-0473-002	RES 5, 1/8W, 47K OHM, CHIP
R24012	-.--	4719-0471-002	RES, 5, 1/8W 470 OHM,CHIP
R24013	2.00	4719-0273-002	RES, 5, 1/8W 27 K CHIP
R24014	3.00	4719-0271-002	RES, 5, 1/8W, 270 OHM, CHIP *
R24015	-.--	4719-0271-002	RES, 5, 1/8W, 270 OHM, CHIP *
R24016	3.00	4719-0180-002	RES, 5,1/8W 18 OHM CHIP
R24017	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R24018	1.00	4719-0183-002	RES, 5, 1/8W, 18K OHM CHIP
R24019	1.00	4719-0225-002	RES, 5, 1/8W 2.2M OHM,CHIP
R24020	1.00	4719-0221-002	RES, 5, 1/8W 220 OHM,CHIP
R24021	-.--	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R24022	1.00	4749-0104-001	POT, 100K OHM, SIDE ADJ SMD
R24023	1.00	4719-0104-002	RES, 5 ,1/8W 100K OHM CHIP
R24024	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R24025	1.00	4749-0203-001	POT, 20K OHM, SIDE ADJ SMD
R24026	1.00	4749-0502-001	POT, 5K OHM, SIDE ADJ, SMD

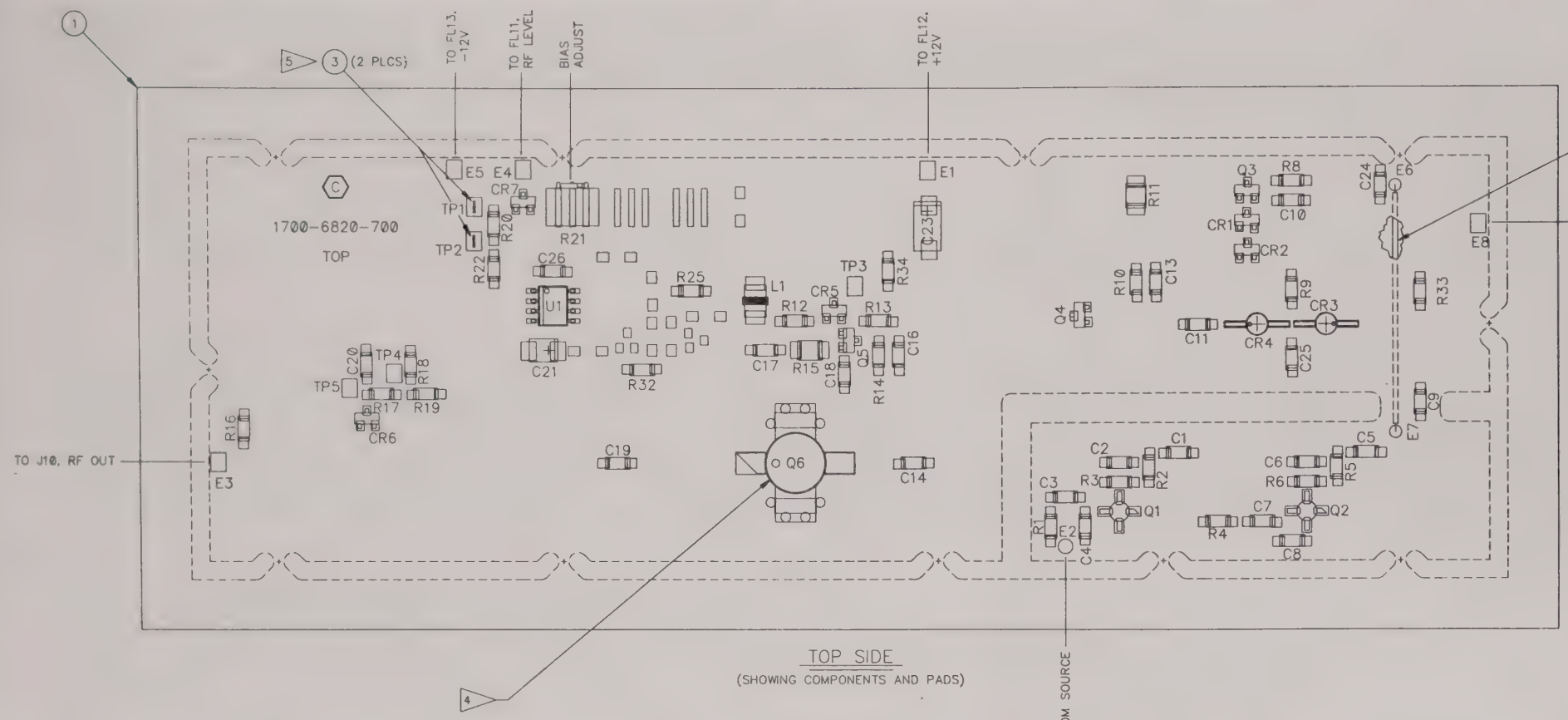
ASSY NO.	REVISION	DESCRIPTION
7010-6830-400	D3	PCB ASSY, 1030MHZ SOURCE

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R24027	1.00	4719-0472-002	RES, 1/8W, 4.7K OHM, CHIP *
R24028	-.--	4719-0103-002	RES, 5, 1/8W, 10K OHM, CHIP *
R24029	-.--	0002-0000-000	*** REF DESIG NOT USED ***
R24030	1.00	4719-0822-002	RES 5, 1/8W, 8.2K OHM, CHIP
R24031	2.00	4719-0332-002	RES, 5, 1/8W, 3.3 K ,CHIP
R24032	-.--	4719-0271-002	RES, 5, 1/8W, 270 OHM, CHIP *
R24033	-.--	4719-0102-002	RES, 5, 1/8W, 1.0K OHM,CHIP
R24034	1.00	4719-0680-102	RES, 5, 1/8W, 68 OHM,CHIP
R24035	-.--	4719-0101-003	RES, 5, 1/8W, 100 OHM CHIP
R24036	4.00	4719-0683-002	RES, 5, 1/8W 68 K ,CHIP
R24037	3.00	4719-0681-002	RES, 5, 1/8W, 680 OHM,CHIP
R24038	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R24039	-.--	4719-0683-002	RES, 5, 1/8W 68 K ,CHIP
R24040	-.--	4719-0681-002	RES, 5, 1/8W, 680 OHM,CHIP
R24041	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R24042	-.--	4719-0683-002	RES, 5, 1/8W 68 K ,CHIP
R24043	-.--	4719-0681-002	RES, 5, 1/8W, 680 OHM,CHIP
R24044	-.--	4719-0273-002	RES, 5, 1/8W 27 K CHIP
R24045	-.--	4719-0470-002	RES, 5, 1/8W, 47 OHM CHIP
R24046	1.00	4719-0331-002	RES, 5, 1/8W, 330 OHM CHIP
R24047	-.--	4719-0683-002	RES, 5, 1/8W 68 K ,CHIP
R24048	-.--	4719-0152-002	RES, 5, 1/8W, 1.5K OHM CHIP
R24049	-.--	4719-0332-002	RES, 5, 1/8W, 3.3 K ,CHIP
R24050	-.--	4719-0101-003	RES, 5, 1/8W, 100 OHM CHIP
R24051	-.--	4719-0150-002	RES, 5, 1/8W, 15 OHM CHIP
R24052	-.--	4719-0101-003	RES, 5, 1/8W, 100 OHM CHIP
R24053	-.--	4719-0150-002	RES, 5, 1/8W, 15 OHM CHIP
R24054	-.--	4719-0180-002	RES, 5,1/8W 18 OHM CHIP
R24055	-.--	4719-0180-002	RES, 5,1/8W 18 OHM CHIP
U24001	1.00	3133-0000-124	IC,3130 BIMOS OP AMP SOL
Z24001	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24005	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24006	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24007	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24008	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24010	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24011	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z24012	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24013	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24014	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24015	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24016	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24017	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24018	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24019	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24020	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24021	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24022	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24023	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****

ASSY NO.	REVISION	DESCRIPTION
7010-6830-400	D3	PCB ASSY, 1030MHZ SOURCE

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
Z24024	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24025	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24026	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24027	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z24028	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****

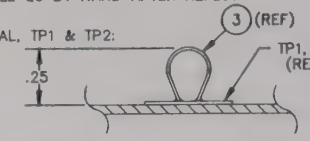
DATE	REV	CHANGE	APVD
4/13/88	C	DESIGN RELEASE, INC REF. Nº 655	CJKW
4/27/88	C-1	INC. REF. Nº 671	CJKW
7/29/88	C-1	PROD REL PER ECN 11475 JR	SLR
5/19/89	D	INC ECN #12311 SCP	DC



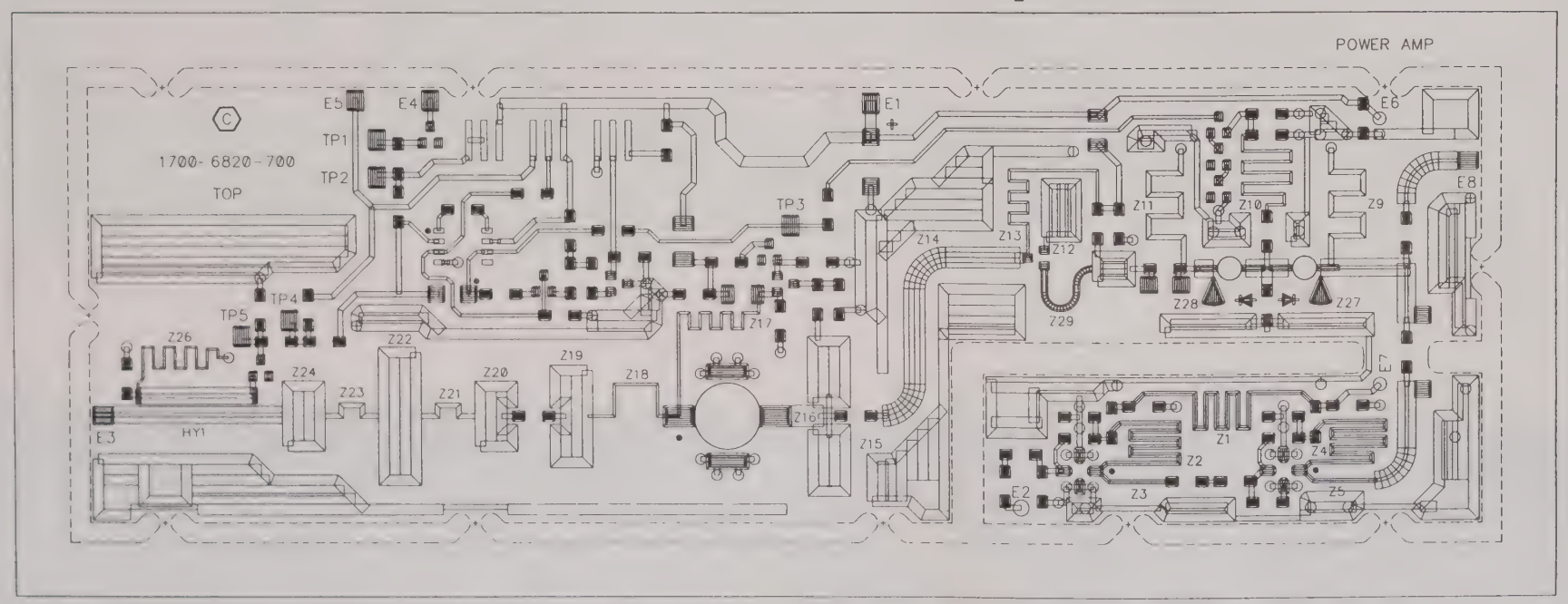
TOP SIDE
(SHOWING COMPONENTS AND PADS)

NOTES:

1. ALL REFERENCE DESIGNATORS CARRY AN ASSIGNED DESIGNATOR SERIES, THIS DWG. CARRIES SERIES 27000 (i.e., R1 IS R27001).
2. JUMPER WIRE (ITEM 2) ON BOTTOM SIDE.
3. THIS PCB ASS'Y INCLUDES STATIC SENSITIVE DEVICES AND SHOULD BE HANDLED IN A STATIC CONTROLLED ENVIRONMENT AT ALL TIMES
4. INSTALL Q6 BY HAND AFTER REFLOW.
5. TYPICAL, TP1 & TP2:



6. REF. SCHEM. 7005-6840-400.



TOP SIDE
(SHOWING PADS AND TRACES)

DRAWN SIGLER 4/26/88	IFR SYSTEMS, INC.
CHECKED R. CRAWFORD 5/19/88	TITLE PCB ASS'Y POWER AMP
APPROVED P.R. HARRIS 5/19/88	SIZE D · DWG. NO. 7010-6830-700 · REV D
	SCALE 3:1 · DO NOT SCALE · FSCM 51190 · SHEET 1 OF 1

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ASSY NO.	REVISION	DESCRIPTION
7010-6830-700	D	PCB ASSY,PWR AMP

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
*01	1.00	1700-6820-700	PC BD,POWER AMP
*01	-.--	1700-6820-700	PC BD,POWER AMP
*02	.25	6003-0000-003	WIRE,HOOK,TFE,26GA, 7S,RED
*02	-.--	6003-0000-003	WIRE,HOOK,TFE,26GA, 7S,RED
*03	.00	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
*03	-.--	1050-0000-075	WIRE,BUS,TINNED COPPER,26GA
C27001	3.00	1622-0103-001	CAP,UF .01 50V CHIP
C27001	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C27002	3.00	1622-0220-001	CAP,PF 22 100V CHIP
C27002	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C27003	3.00	1622-0030-001	CAP,PF 3.0 50V CHIP
C27003	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C27004	2.00	1622-0159-001	CAP,PF 1.5 50V CHIP
C27004	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C27005	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C27005	-.--	1622-0103-001	CAP,UF .01 50V CHIP
C27006	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C27006	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C27007	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C27007	-.--	1622-0030-001	CAP,PF 3.0 50V CHIP
C27008	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C27008	-.--	1622-0159-001	CAP,PF 1.5 50V CHIP
C27009	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C27009	-.--	1622-0220-001	CAP,PF 22 100V CHIP
C27010	1.00	1622-0050-001	CAP,PF 5.0 50V CHIP
C27010	-.--	1622-0050-001	CAP,PF 5.0 50V CHIP
C27011	3.00	1622-0399-001	CAP,PF 3.9 100V CHIP
C27011	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C27012	18.00	0002-0000-000	*** REF DESIG NOT USED ***
C27012	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C27013	3.00	1622-0100-001	CAP,PF 10 50V CHIP
C27013	-.--	1622-0100-001	CAP,PF 10 50V CHIP
C27014	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C27014	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C27015	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C27015	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C27016	1.00	1622-0221-001	CAP,PF 220 50V CHIP
C27016	-.--	1622-0221-001	CAP,PF 220 50V CHIP
C27017	1.00	1622-0182-001	CAP,PF 1800 50V,CHIP
C27017	-.--	1622-0182-001	CAP,PF 1800 50V,CHIP
C27018	-.--	1622-0100-001	CAP,PF 10 50V CHIP
C27018	-.--	1622-0100-001	CAP,PF 10 50V CHIP
C27019	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C27019	-.--	1622-0399-001	CAP,PF 3.9 100V CHIP
C27020	-.--	1622-0100-001	CAP,PF 10 50V CHIP
C27020	-.--	1622-0100-001	CAP,PF 10 50V CHIP
C27021	1.00	1507-0105-123	CAP,UF 1.0, 35V,TANT,CHIP
C27021	-.--	1507-0105-123	CAP,UF 1.0, 35V,TANT,CHIP
C27022	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C27022	-.--	0002-0000-000	*** REF DESIG NOT USED ***
C27023	1.00	1621-0106-016	CAP, UF 10 16V, TANT SMD
C27023	-.--	1621-0106-016	CAP, UF 10 16V, TANT SMD
C27024	-.--	1622-0103-001	CAP,UF .01 50V CHIP

ASSY NO.	REVISION	DESCRIPTION
7010-6830-700	D	PCB ASSY,PWR AMP

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
R27034	-.--	4719-0222-002	RES, 5, 1/8W 2.2K OHM,CHIP
TP27003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP27003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP27004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP27004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP27005	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
TP27005	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
U27001	1.00	3133-0000-124	IC,3130 BIMOS OP AMP SOL
U27001	-.--	3133-0000-124	IC,3130 BIMOS OP AMP SOL
Z27001	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27001	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27002	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27003	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27004	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27005	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27005	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27006	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27006	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27007	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27007	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27008	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27008	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27009	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27010	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27010	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27011	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27011	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27012	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27012	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27013	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27013	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27014	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27014	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27015	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27015	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27016	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27016	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27017	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27017	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27018	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27018	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27019	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27019	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27020	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27020	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27021	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27021	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27022	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27022	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****

ASSY NO.	REVISION	DESCRIPTION
7010-6830-700	D	PCB ASSY,PWR AMP

REF.DES.	QTY	COMP. PART NO.	DESCRIPTION
Z27023	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27023	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27024	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27024	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27025	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27025	-.--	0002-0000-000	*** REF DESIG NOT USED ***
Z27026	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27026	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27027	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27027	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27028	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27028	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27029	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****
Z27029	-.--	0003-0000-000	***** FOR REFERENCE ONLY *****

DATA PACKAGE

MODE-S